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ABSTRACT

This collection of papers by the graduate students and faculty in linguistics at the University of Kansas offers summaries of works in progress dealing with general linguistics and studies in Native American languages. General linguistics papers include: "Resetting Bounding Nodes in Acquiring Spanish" (Ramiro Cebreiros); "Syntax of Demonstrative Adjectives in Japanese: A Preliminary Study" (Minoru Fukuda); "Judgments of Politeness in L2 Acquisition" (Yoko Harada); "A-bar Dependency, Wh-Scrambling in Korean, and Referential Hierarchy" (Gunsoo Lee); "K'iche' Maya Verbs of Breaking and Cutting" (Clifton Pye); "An NP-Movement Account of Tough Constructions" (Michael Reider); and "English Verb-Particle Constructions: Two Types, Two Structures" (Ed Zoerner). Native American language papers include "Cherokee Stories of the Supernatural" (Janine Scancarelli) and "Endangered Languages Data Summary" (Akira Y. Yamamoto). (Contains chapter references.) (NAV)

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Part I: General Linguistics

RESETTING BOUNDING NODES IN ACQUIRING SPANISH

Ramiro Cebreiros
University of Kansas

Abstract: This paper addresses the issue of whether L2 learners can reset parameters, by testing English speakers learning Spanish on their ability to reset the bounding node parameter. The bounding nodes are : IP and NP in English, CP and NP in Spanish. Subjects were given a grammaticality judgment task in Spanish that included wh-island and complex NP structures. Results show that they rejected most of the wh-structures (62.5%). This suggests that they are still transferring the bounding nodes from English. However, they rejected the complex NP structures at a higher rate (96%) suggesting that they are beginning to reset the bounding node parameter.

1. Introduction

This paper presents an experiment that tested the parametric difference between English and Spanish regarding bounding nodes. Bounding nodes in Spanish are CP and NP (Torrego 1984). In English, in contrast, IP and NP are the bounding nodes (Chomsky 1973). The purpose of the experiment was to test whether L2 Spanish learners whose L1 is English are able to reset this parameter. Results show that English speakers have not reset the parameter, they are still transferring the bounding nodes value from English. The resetting of this parameter is difficult due to the fact that these structures are uncommon in Spanish, resulting in lack of enough positive evidence.

The paper describes the parametric difference between English and Spanish in more detail in section 2, which also discusses previous studies of this difference in second language acquisition. Section 3 describes the experiment, section 4 presents the results and section 5 discusses the results and the problems that were encountered in the experiment.

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2. The Parametric Difference Being Tested

Subjacency and Bounding Nodes in Spanish and English

According to the linguistic theory of Universal Grammar first elaborated in Chomsky 1981, all languages consist of principles and parameters. Principles are the invariant linguistic features that all languages have in common. However, linked to these principles is a limited set of variables, and languages may differ in the values they choose; these variant values are called parameters.

Languages which have syntactic movement are subject to the subjacency constrain, which prevents a constituent from crossing more than one bounding node in a single step (Chomsky 1973: 271):

> 'No rule can move an item from position Y to position X in the structure
>
> $\ldots[\beta\ldots[\alpha\ \ldots Y\ldots]\ldots]\ldots X\ldots$
>
> where $Y \neq \alpha$ and α, β are cyclic categories, unless some constant term of the structural description of the rule holds of a phrase in β that is subjacent to X.'

However, they may differ in terms of what the bounding nodes are. while the bounding nodes in English are IP and NP (Chomsky 1973), in Spanish, they are CP and NP (Torrego 1984: 114):

> The configurations presented are the possible derivations for long Wh Movement allowed by Subjacency in Spanish:
>
> a. s' [[wh-phrase$_i$] s [. . . s' [e$_i$ s [. . . s' [e$_i$ s [. . . e$_i$ . . .]]]]]]
>
> b. s' [[wh-phrase$_i$] s [. . . s' [e$_i$ s [. . . s' [e$_i$ s [. . . e$_i$ . .]]]]]]

In English (1a) and (1b) are grammatical because the 'wh-element' only crosses one bounding node. Although in (1b) it might seem that the 'wh-element' crosses two IPs, this is not the case. In the first step it crosses the lower IP and moves to [Spec, CP] leaving a trace*t* and, from here, it moves to the second [Spec, CP], so that it only crosses one bounding node in each movement.

(1) a. [$_{CP}$What$_j$ did [$_{IP}$ the boy throw t_j]]?
b. [$_{CP}$ What$_j$ did [$_{IP}$ the boy [$_{CP}$ t_j that [$_{IP}$ lives next door]] throw t_j]]?

(2a) and (2b) are ungrammatical because the 'wh-element' crosses two bounding nodes at a time. In (2a) it cannot move to the first CP because this position is already filled. In (2b) the wh-phrase moves in two steps. In the first one it crosses only one bounding node (the lower IP) and , in the second step, it crosses two bounding nodes (NP and the IP above it).

(2) a. *[$_{CP}$ What book$_j$ don't [$_{IP}$ you know [$_{CP}$ if [$_{IP}$ Pepe has read t_j]]]]?
b. * [$_{CP}$ What$_j$ didn't [$_{IP}$ you know [$_{NP}$ the book [$_{CP}$ that [$_{IP}$ they gave you t_j]]]]?

The Spanish sentences in (3), equivalent to those in (1), are grammatical for the same reasons as in English.

(3) a. ¿[$_{CP}$ Qué$_j$ [$_{IP}$ tiróV el niño tV t_j]]?
b. ¿[$_{CP}$ Qué$_j$ [$_{IP}$ tiróV el niño [$_{CP}$ t_j que [$_{IP}$ vive en la casa de al lado]] tVt_j]]?

In Spanish, however, (4a), the equivalent sentence to the ungrammatical (2a), is grammatical because IP is not a bounding node in this language, so the 'wh-element' can move across two IPs in a single step. (4b), equivalent to (2b), is also ungrammatical in Spanish because NP is a bounding node in this language. A 'wh-element' cannot be extracted from a complex NP, since doing so would involve crossing out of the embedded CP and the NP above it in one step, thereby violating subjacency.

(4) a. ¿[$_{CP}$ Qué libro$_j$ [$_{IP}$ no sabes [$_{CP}$ si [$_{IP}$ Pepe ha leído t_j]]]]?
b. *¿[$_{CP}$ Qué$_j$ [$_{IP}$ no sabías [$_{NP}$ el hecho [$_{CP}$ que [$_{IP}$ te dieron t_j]]]]?

Previous Studies of Different Bounding Nodes in L2

Very few studies on the resetting of bounding nodes have been carried out (Johnson 1988, White 1985, 1988, Uziel 1991), and English has been the L2 in each case. One of the few studies that deal with Spanish is Johnson 1988.[1] She compared knowledge of Subjacency by Chinese speakers (Chinese lacks movement) and Spanish speakers

(Spanish has movement). Spanish speakers performed much better than Chinese. This was expected since in Chinese syntactic movement is not possible. However, Spanish speakers did not do as well as native speakers. This could be explained by the parametric difference between English in Spanish, that is, by the fact that they have different bounding nodes. Nevertheless, Johnson's conclusions are that the results do not show problems of this type. Spanish speakers seem to have the same bounding nodes as English speakers. They adopted the English parameter value. They had more problems with extractions from NPs, that are not allowed in any language. She concludes that these results are not predicted by any theory and cannot really account for these results and, although it might influence the results, problem-solving strategies are probably used too. She does not consider the possibility that the Spanish learners have actually reset the parameter.

Another study of this parametric difference between Spanish and English is White 1985. In this case, French subjects were also used in the experiment, since French has the same bounding nodes as Spanish (CP and NP). While Subjacency and bounding nodes were not the actual object of the test (the pro-drop parameter was) White included several sentences that violated Subjacency in English, but not in French or Spanish. The results were that the students of lower levels accepted them. This suggests that they are transferring from L1. The students of higher levels performed better and even accepted some sentences that were also accepted by native speakers but, in theory, were not grammatical, which may suggest that their judgements are similar to those of native speakers. She is not able to say whether these students went through a stage where IP (S) was not considered a bounding node. But she defends the importance of UG because all subjects were consistent, either they chose the L1 parameter value or the L2 value. UG is still operating.

White 1988 tested bounding nodes differences between English and French. Her subjects were three different groups of French speakers: two of adults and one of adolescents.[2] Both adult groups rejected violations of wh-islands. The results were not as good as for the extractions from NP. One group accepted a lot of the sentences that included violations of wh-islands. This suggests that they are still transferring from L1, but the fact that they still rejected a lot of sentences (especially one of the adult groups) also suggests that parameter resetting is possible. Even when their responses were not right in English, they always respected UG, since IP is not a bounding node in several languages. White also included sentences that

involved a 'that-trace' effect. They all accepted the grammatical sentences where the complementizer was absent, but they did not do that well on the sentences that exhibited a 'that-trace' effect. This cannot be transfer from L1 because French, like English, does not allow 'that-trace'. English native speakers also accepted sentences that contained the 'that-trace'. These results do not go against UG, since there are many languages, like Spanish or Dutch, that allow the 'that-trace'.

In conclusion, while Johnson 1988 does not think that UG gives a satisfactory explanation for the knowledge of bounding nodes by Spanish speakers, White 1985, 1988 supports the possibility of resetting this parameter and the importance of UG since her results are always within UG predictions. However, French and Spanish speakers do not perform like native speakers. Further research needs to be done to test for parameter resetting, especially in Spanish, since no one yet has worked on resetting bounding nodes in this language. This paper presents a pilot study on this topic.

3. Method

Subjects

The subjects for the experiment were 8 American graduate students in the Spanish Department of the University of Kansas. Some background information on them is given in Table 1.

	average	range
age at testing	24	22-28
years studying Spanish	11.4	7.5-25
age when they started	11.6	3-15

Table 1 Background information on subjects

All of them were highly proficient in Spanish. They had studied this language for an average of 11 years and had taken a lot of courses in Spanish in high school and college. They came from many different colleges and areas of the country, but their knowledge of Spanish was similar. They all started learning the language quite young and most of them had lived in a Spanish- speaking country for several months. Only one had been to Spain for only 10 days. Another one had lived in El Salvador for 8 years. The countries that the subjects had been to varied. Some of them were Spain, Mexico, Argentina, El Salvador, Guatemala or Honduras. One of them was three years old when she

started, since she had lived in El Salvador as a child. The average age of the subjects when they began studying Spanish was 12 years old. The average age at testing of the subjects was 24. The youngest subject was 22 years old and the oldest 28 years old. Only three of them spoke other languages besides Spanish. Two of them spoke French (one was a French major) and the other one some Italian and Japanese. However, Spanish was not the only language they had knowledge of. They all had studied other languages. Half of them had studied French, Hebrew, Japanese, Italian, Chinese and German were other languages that they also had studied.

The control group consisted of 7 Spanish speakers that were graduate students in the Spanish Department of the University of Kansas. They all were from the same area of Spain, so no dialectal differences should be found in their results.

Materials

The materials used in the experiment were a syntax pretest and a grammaticality judgment task. The pretest consisted of three different tasks that included very similar structures to those used in the grammaticality judgment task to make sure that the subjects had an adequate knowledge of the structures being tested. The first one of these tasks was an exercise on relative clauses where they had to link sentences using a relative pronoun. There were six sentences in which the relative pronouns that had to be provided had the function of subject, direct object and indirect object. An example of each is given below:

(5) a. Mi novia vio una película. La película fue muy divertida.
My girlfriend saw a movie. The movie was very entertaining.

b. El cantante es simpático. Yo conocí al cantante en el bar.
The singer is nice. I met the singer in the bar.

c. Mi hermano vive en España. Yo le compré un regalo a mi hermano.
Mi brother lives in Spain. I (him) bought a present for my brother.

The second task involved wh-movement. There were six sentences in which a noun phrase was underlined. Taking into account these underlined noun phrases, subjects were asked to form appropriate questions. These NPs were subjects, direct objects or indirect objects. Several examples of these are:

(6) a. Antonio Banderas es el mejor actor del mundo.

Antonio Banderas is the best actor in the world.
b. Yo vi una película en el cine que me gustó mucho.
I saw a movie in the theatre that I liked a lot.
c. Le regalé un diamante a mi novia por su cumpleaños.
(him) (I)gave a diamond to my girlfriend for her birthday.

The last task was a translation of Spanish relative-clause sentences using similar structures to the ones used in the test : wh-questions, clefts and appositives. They involved extraction of subjects, direct objects or indirect objects. The following are examples of the three structures:

(7) a. Esta es la película que el chico que está en clase vio ayer.
This is the movie that the guy that is in class saw yesterday.
b. Mi hermano, a quien le compré un regalo, es simpático.
My brother, for whom (him) (I) bought a present, is nice.
c. ¿Sabes quién vio la película esta mañana?
Do you know who saw the movie this morning?

All the sentences used in this pretest were balanced for length and contained the same vocabulary that was used in the grammaticality judgment test.

The grammaticality judgment task consisted of 54 test sentences and 6 fillers. The test sentences included 21 sentences where a constituent crossed two nodes (CP and IP). These are grammatical in Spanish but not in English because in Spanish IP is not a bounding node. These 21 sentences consisted of 6 wh-questions, 6 cleft sentences and 9 appositives. Each one of these three structures included three sentences that involved extraction of a direct object and three, extraction of a subject. In the case of the appositives, three sentences were included in which there was an extraction of an indirect object.

(8) Wh-islands: questions

a. ¿Qué libro no sabías si tu novia leyó ayer por la noche?
What book didn't you know if your girlfriend read yesterday night?

b. ¿Quién no sabes si murió ayer por la noche?
Who don't you know if died yesterday night?

(9) Wh-islands: clefts

a. Este es el libro que no sabes si mi novia ha leído.
This is the book that you don't know if my girlfriend has read.

b. Este es el hombre que no sabes si murió ayer.

This is the man that you don't know if died yesterday.

(10) Wh-islands: appositives

a. Este libro, que creo que sabes a quién regalé, es mi favorito.
This book, that I think that you know for whom I bought, is my favourite.

b. Mi abuela, que no sé si murió, estaba muy enferma.
My gramdmother, that I don't know if died, was very sick.

c. Mi hermano, a quien me pregunto qué historias han contado, estaba preocupado.

The test also included 21 sentences that involved extractions out of an NP. These are ungrammatical in English and Spanish because two bounding nodes are crossed in both languages. These sentences also consisted of 6 wh-questions, 6 cleft sentences and 9 appositives. Each one of these three structures included three sentences that involved extraction of a direct object and three, extraction of a subject (in the appositives also three extractions of an indirect object).

(11) NP-extractions: questions

a.¿Qué libro conoces a mi novia que leyó ayer por la noche?
What book do you know my girlfriend that read yesterday night?

b. ¿Quién no sabes el libro que leyó ayer por la noche?
Who do you know the book that read yesterday night?

(12) NP-extractions: clefts

a. Este es el libro que conozco al hombre que leyó ayer por la noche.
This is the book that I know the man that read yesterday night.
b. Este es el hombre que sé el libro que leyó.
This is the man that I know the book that read.

(13) NP-extractions: appositives

a. Este libro, que creo que conoces al hombre que leyó, es mi favorito.
This book, that I think that you know the man that read, is my favourite.

b. El hombre, que creo que sabes el libro que leyó, es simpático.
The man, that I think that you know the book that read, is nice.

c. Mi novia, a quién sé las canciones que han cantado, estaba emocionada.
My girlfriend, to whom I know the songs that they have sung, was excited.

The other 12 sentences were related to the 'that-trace' that does not involve Subjacency but it is usually associated with it because it

involves problems in the government of a trace. Spanish requires the presence of the 'that-trace' ('que' in Spanish) while English does not allow the 'that-trace'. There were six sentences that contained 'que' ('that') and six that did not contain this complementizer. Three involved extraction of a subject and three of an object in each of these two structures.

(14) 'That- trace'
a.¿Qué crees que Pedro ha comprado para el cumpleaños de su novia?
What do you think that Pedro has bought for the birthday of his girlfriend?
b. ¿Quién crees que irá a la fiesta mañana por la noche?
Who do you think that will go to the party tomorrow night?

(15) Without 'that-trace'
a. ¿Qué crees Pedro ha comprado para el cumpleaños de su novia?
What do you think Pedro has bought for the birthday of his girlfriend?
b. ¿Quién crees irá a la fiesta mañana por la noche?
Who do you think will go to the party tomorrow night?

All the sentences were balanced for length within each structure and randomized so that a specific set of sentences did not influence the other ones. The same vocabulary was used in all the sentences. It was also very basic in order to avoid problems that were not related to the syntactic structures.

Procedure

The subjects were given the pretest and the grammaticality judgment test at the same time. They were allowed to bring it home and spend all the time they wanted on it. For the grammaticality judgment test they were asked to record a check mark for all the sentences that they thought that were grammatical and made sense, and an asterisk for all the sentences that did not make sense. They were asked not to consult any grammar or sources. They also were told not to worry about problems related to vocabulary or other things like, for instance, accent marks.

4. Results

All the subjects passed the pretest. They did not have any mistakes, which proves that they knew the structures to be tested pretty well. The overall results for the 60 sentences on the experimental task show that both groups, the control group and the L2 learners, performed above chance. The native speakers did better, they got

84.11% of the sentences right, while the American subjects got 70.48% right. Thus, the difference between those groups is not very important overall, but there are significant differences on specific structures.[3]

The percentages of correct answers for the wh-islands are given inTable 1. All these sentences are grammatical in Spanish but incorrect in English. There is a significant difference between the answers of the control group and the non-native speakers. The control group accepted most of these sentences (89.76%) while the subjects did not (37.49%).

	% control	% experimental
wh-islands overall	89.76	37.49
Questions	95.23	27.08
Object extractions	100	37.49
Subject extractions	90.47	16.66
Clefts	100	58.33
Object extractions	100	62.49
Subject extractions	100	54.16
Appositives	79.36	31.94
Direct Object extractions	90.47	37.49
Subject extractions	85.71	45.83
Indirect Object extractions	61.90	12.49

Table 2 Percentages correct for wh-islands

The results for the extractions out of NPs are shown in Table 3. All these sentences are ungrammatical in both languages. Surprisingly, the non-native speakers did better than the control group. Both groups rejected most sentences although there is an important difference. The control group rejected only 76.86% of the sentences while the subjects rejected 95.83%.

	% control	% experimental
NP-extractions overall	76.86	95.83
Questions	100	100
Object extractions	100	100
Subject extractions	100	100
Clefts	85.71	100

Object extractions	85.71	100
Subject extractions	85.71	100
Appositives	55.55	90.27
Direct Object extractions	95.23	95.83
Subject extractions	14.28	83.33
Indirect Object extractions	57.14	91.66

Table 3 Percentages correct for NP-extractions

The results for the 'that-trace' sentences are given in Table 4. The sentences that included 'que' ('that') are correct in Spanish but wrong in English and the ones that did not include the 'que' ('that') are wrong in Spanish but correct in English. The overall results for these sentences were similar, although Spanish speakers did better. They accepted all the sentences with the *that* complementizer present and only two also accepted the ones that did not have 'que.' The American subjects were more inconsistent. They accepted the *that* complementizer in only 77.08% of the cases and they rejected the sentences without 'que' in 79.16 % of the cases.

	% control	% experimental
'That'-trace sentences:overall	85.71	78.12
'That' complementizer	100	77,08
Object extraction	100	91.66
Subject extraction	100	66.66
No complementizer	71.42	79.16
Object extraction	71.42	87.49
Subject extraction	71.42	70.83

Table 4 Percentages correct for 'that-trace' sentences

5. Discussion

The most interesting results are those related to the parametric difference between Spanish and English, that is, those related to the 21 'wh-islands' where a constituent crosses two nodes (IP and CP) at the same time. These sentences are grammatical in Spanish since IP is not a bounding node in this language. The control group supports this.[4] They accepted most of the sentences, especially the questions and clefts. The American subjects performed poorly on the 'wh-islands', below chance. They only accepted them in 37.49% of the cases. Thus, the

difference between their responses and those of the control group is very important. This suggests that they are still transferring from the L1 since they are treating IP as a bounding node. Their responses are still within UG because they are consistent with a UG possibility, the one they have in their own language. Although the subjects were highly proficient in Spanish and had studied it for a long time, they do not seem to have reset the parameter. The age variable did not make any difference because the two people that started learning Spanish really early did even worse than other subjects that started later (one of them rejected all the sentences of this type).

Although these results argue against the possibility of resetting parameters, some observations should be made. Two subjects performed much better (76.19% and 66.66% right overall). And the subjects as a group did better on the clefts, they performed a bit above chance (58.33%), suggesting that some parameter resetting has taken place. The difference found between clefts and questions is probably due to the fact that clefts tend to sound more natural than questions. In addition, the fact that the questions were long and not very common in Spanish may have caused subjects to reject more sentences of this type. The subjects did really poorly on the appositives that involved indirect object extraction (only 12.49% right). These also caused some problems for the native speakers. Spanish usually requires the presence of the indirect object pronoun together with the indirect object noun or prepositional phrase. In the sentences that were used in the test, the pronouns were not included so that the sentences were simpler and the extraction of the indirect object more obvious. It is possible that some sentences did not sound good because of the absence of the pronoun.[5]

In any case, the resetting of this parameter seems to be quite hard. One of the reasons for this is the fact that there is not a lot of positive evidence because these sentences are not very common in Spanish. Usually simpler and shorter sentences are used in everyday speech, so it has to be difficult to accept the grammaticality of sentences like this or to notice the difference in bounding nodes.

Regarding the extractions out of NPs, the difference is not that significant. Both the native speakers and the Americans rejected most sentences. The Americans were very consistent (95.83% of rejections). They seem to be sure about the impossibility of crossing an NP and a CP at the same time. This is something that UG does not allow, so all subjects respect UG. The control group accepted more of these

sentences (76.86% of rejections). They rejected all the questions and almost all the clefts. The problem is that they accepted most of the appositives that involve subject extraction from NPs and above 50% of the appositives that involve indirect object extraction out of NPs. This is not allowed by UG. It is hard to determine why they responded like this. The sentences are similar to the wh-islands, so it is possible that they associated them with the other sentences that were grammatical. In the case of the subject extractions, since Spanish is a pro-drop language, they may not have realized where the NP was extracted from. Similarly, in the case of the indirect object extractions, because prepositional phrases can be placed in almost every position in Spanish, it may have been hard for them to determine the underlying position of the constituents.

Another interesting observation is that, if the answers of the Americans for 'wh-islands' and 'NP-extractions' are compared, there is still a contrast. They did not reject all the 'wh-islands' but they rejected almost all the sentences that contained 'NP-extractions'. In English both are equally bad. This difference suggests that some parameter resetting might have taken place.

Regarding the 'that'-trace structures, the American subjects performed well but a bit worse than the native speakers.[6] This suggests that parameter resetting is possible in this case. The Americans rejected some sentences with 'that', especially when there was extraction of subject. They rejected most sentences without 'que' but they also accepted some, especially those in which there was extraction of subject. They still transferred some of the properties from the L1; in some cases they did not like the 'that' since English does not allow it. However, their performance was good, not very much different from native speaker's performance, although a bit more inconsistent.

Some problems found in the experiment were related to the fact that, in some sentences (the appositives that included an indirect object), the indirect object pronoun was left out, when it is normally used in Spanish. This caused confusion for all subjects, including the control group. Another problem was that almost all the sentences used in the experiment were bad in English. This might encourage a negative response to all the sentences (some subjects rejected almost all sentences). A future experiment should include more sentences that are parallel to the 'wh-islands' or 'NP-extractions' but are grammatical in English (sentences that do not cross two bounding nodes for English at the same time). Also, more subjects should be used in the

experiment in order to obtain results that are more reliable, and so that statistical tests can be performed.

6. Conclusion

English speakers do not seem to be able to reset the parametric difference involving bounding nodes. They did poorly on the sentences in which a constituent crossed an IP and CP. This suggests that they are transferring from the L1. The difficulty has to do with lack of positive evidence, since these structures are hardly used in Spanish. However, a contrast was found between their responses to the 'wh-islands' and the 'NP-extractions'. They accepted more sentences from the former group than from the latter group, while all should be equally bad in English. This suggests that some parameter resetting might be taking place. Age did not make any difference in the results. Their responses were within UG predictions even when they were wrong so, whether or not parameter resetting is possible, UG is still operating.

NOTES

[1] Bounding nodes were not the actual object of her study (the critical period hypothesis was), although she does discuss this issue briefly. Her conclusions are quite vague.

[2] The latter group scored around chance level on the grammatical sentences, so they were not taken into account for the study.

[3] All of them accepted the fillers that were right. This also shows that their proficiency in Spanish was good.

[4] Only one of the native speakers did not accept a couple of questions that involved the extraction of the subject. The reason for this response is not clear.

[5] This explanation is supported by the fact that some subjects corrected the sentences and included an indirect object pronoun.

6 Only two Spanish speakers of the control group accepted all the sentences without 'que' that, in theory, are not grammatical in Spanish. A possible answer to this is that they have been in contact with English for a long time and, since they know that the omission of 'that' is possible in English, they accept it in Spanish, although they might not use it.

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APPENDIX

Sentence battery

<u>Wh-islands (questions)</u>
objects
¿Qué libro no sabes si mi novia leyó ayer por la noche?
¿Qué canción me preguntaste si había oído en la radio?
¿Qué película me preguntaste si había visto la semana pasada?

subjects
¿Quién me preguntaste si había estudiado conmigo en la escuela?
¿Quién no sabes si murió ayer por la noche?
¿Quién no sabes si fue a México el verano pasado?

<u>Wh islands (clefts)</u>
objects
Esta es la película que no sabes si había visto ayer.

Este es el libro que no sabes si mi novia ha leído.
Esta es la canción que me preguntaste si había oído ayer.

subjects
Este es el hombre que no sabes si murió ayer por la noche.
Esta es la persona que me preguntaste si había estudiado conmigo.
Este es el viajero que no sabes si fue a México el año pasado.

Wh islands (appositives)
direct objects
Ese libro, que creo que sabes a quién regalé, es mi favorito.
Esa canción, que creo que sabes a quién canté, es hermosa.
Esa película, que creo que sabes a quién recomendé, es divertida.

subjects
Mi abuela, que no sé si murió, estaba muy enferma.
El viajero, que no sabes si fue a México, está aquí.
La persona, que no sabes si ha estudiado contigo, llamó por teléfono.

indirect objects
Mi hermano, a quien me pregunto qué historias han contado, estaba preocupado.
Mi novia, a quien me pregunto qué canción han cantado, estaba emocionada.
Mi amigo, a quien me pregunto qué libros han regalado, estaba alegre.

NP-extractions (questions)
objects
¿Qué libro conoces a mi novia que leyó ayer por la noche?
¿Qué canción conoces al hombre que cantó hoy por la mañana?
¿Qué película conoces a mi amigo que vio la semana pasada?

subjects
¿Quién sabes el libro que leyó ayer por la noche?
¿Quién sabes la película que vio hoy por la mañana?
¿Quién sabes la canción que cantó la semana pasada?

NP-extractions (clefts)
objects
Este es el libro que conozco al hombre que leyó ayer por la noche.
Esta es la película que conozco a la señora que vio la semana pasada.
Esta es la novia que sé la película que vio la semana pasada.

subjects
Este es el hombre que sé el libro que leyó ayer por la noche.
Este es el cantante que sé la canción que cantó esta mañana.
Esta es la canción que conozco al cantante que cantó hoy por la mañana.

NP-extractions (appositives)
direct objects
Esa canción, que creo que conoces al cantante que cantó, es hermosa.
Ese libro, que creo que conoces al hombre que leyó, es mi favorito.
Esa película, que creo que conoces al chico que vio, es divertida.

subjects
Mi amigo, que creo que sabes la película que vio, está alegre.
El cantante, que creo que sabes la canción que cantó, es bueno.
El hombre, que creo que sabes el libro que leyó, es simpático.

indirect objects
Mi novia, a quien sé las canciones que han cantado, estaba emocionada.
Mi amigo, a quien sé los libros que han regalado, estaba alegre.
Mi hermano, a quien sé las historias que han contado, estaba preocupado.

'That'-trace
objects
¿Qué crees que ha comprado Pedro para el cumpleaños de su novia?
¿Qué crees que vio tu novia en el cine la semana pasada?
¿Qué crees que le dijo tu madre a tu hermano ayer por la noche?

subjects
¿Quién crees que irá a la fiesta mañana por lanoche?
¿Quién crees que comprará la casa de mis abuelos el año que viene?
¿Quién crees que cantará una canción en la fiesta mañana por la noche?

Non 'that'-trace
objects
¿Qué crees ha comprado Pedro para el cumpleaños de su novia?
¿Qué crees vio tu novia en el cine la semana pasada?
¿Qué crees le dijo tu madre a tu hermano ayer por la noche?

subjects
¿Quién crees irá a la fiesta mañana por la noche?

¿Quién crees comprará la casa de mis abuelos el año que viene?
¿Quién crees cantará una canción en la fiesta mañana por la noche?

Fillers
Esta es la película que el chico que está en clase vio ayer.
La canción que el cantante cantó en el bar es hermosa.
Ese es el libro que el hombre que trabaja en la librería me recomendó.
Este es el hombre que vino a la fiesta que dio mi novia.
¿Qué libro te recomendó el hombre que trabaja en la librería?
La película que la chica que trabaja en Walmart vio es muy buena.

SYNTAX OF DEMONSTRATIVE ADJECTIVES IN JAPANESE: A Preliminary Study

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Abstract: It is argued that demonstrative adjectives like *ano* ("that"), *kono* ("this"), and *sono* ("the or that") occupy the highest Spec position in DP in Japanese, and that they block A-bar movement out of DP. The interactions among demonstrative adjectives, genitive phrases like *John-no* ("John's"), and WH-words like *dare-no* ("whose") are explainable under our proposal."

1. Introduction

It has been observed that demonstrative adjectives like *this* and *that* (or determiners like *the*) and genitive 's do not co-occur in English, as shown in (1).

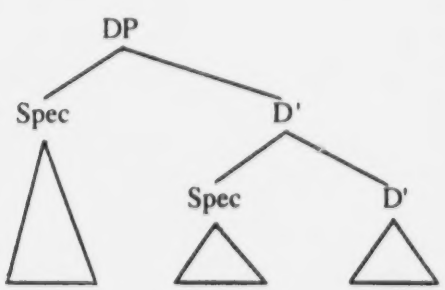
(1) a. * *that* John's picture

b. * John's *that* picture

(Cf. that picture of John's)

This fact supports the view that there is only one Spec position in DP in English. Thus, the structure illustrated in (2) is not allowed in English (see Kimura 1994).

(2)



1a.	that	John's	picture
1b.	John's	that	picture

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In contrast to the English cases shown above, their Japanese counterparts are well-formed. This suggests that the structure demonstrated in (2) is permissible in Japanese.

(3) a. John-no ano syasin
John-Gen that picture

b. ano John-no syasin
that John-Gen picture

It will be argued in this paper that the construction shown in (3a) is derived from that in (3b). More specifically, it will be argued that demonstrative adjectives such as *ano* ("that") occupy the highest Spec position in DP, which serves as an A-bar position.

The following section focuses on a difference in DP structure between English and Japanese. Section 3 presents data which show interactions among demonstrative adjectives, genitive phrases like *John-no* ("John's"), and WH-words like *dare-no* ("whose") in DP. Section 4 tries to account for these interactions. Section 5 summarizes the proposal presented in this paper.

2. DP Structure in English and Japanese

As already pointed out above, one of the differences in DP structure between English and Japanese is whether multiple Specs in DP are allowed or not. Another significant difference can be observed in the following examples.

(4) a. You saw John's picture.

b. *Whose* picture did you see *t*?

c. * *Whose* did you see *t* picture?

The contrast between (4b) and (4c) indicates that in English it is impossible to overtly extract *whose* out of DP, but that the whole DP must be moved. Chomsky (1995: 263; MIT Lecture, Fall 1995) provides an explanation for this. Chomsky argues that the WH-phrase *whose* is not a single syntactic phrase, but that *whose* consists of two elements, *who* and *'s*, as shown below.[1]

(5) whose = who + 's

Similarly, other WH-words like *what* and demonstrative adjectives like *that* are analyzed as in (6) (Chomsky MIT Lecture, Fall 1995).

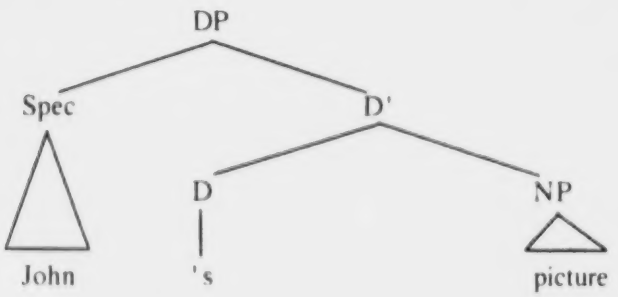
(6) a. what = wh + at

b. that = th + at

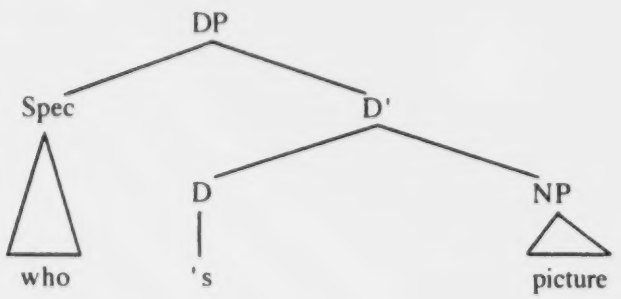
Under the DP analysis then (see (7)), *whose picture* is assumed to have the structure shown in (8) (see Chomsky 1995: 263, example 27), according to which [*who* + 's], being neither a minimal projection or a maximal projection, does not qualify as a syntactic object that is subject to movement operations (see Chomsky 1986: 4).

(7) a. John's picture

b.



(8)



If *who* is moved overtly, as in (9b), the derivation crashes at PF, since the two disconnected elements are not pronounceable (Chomsky 1995: 263).

(9) a. You saw [$_{DP}$ who [$_{D'}$ [$_{D}$'s] [$_{NP}$ picture]]]

b. * *Who* did you see [DP *t* [D' [D 's] [NP picture]]]?

The above argument seems to hold for languages such as English. However, things are different in Japanese. Let us consider the following examples.[2,3]

(10) a. Kimi-wa *John-no* syasin-o mi-ta no?
you-Top John-Gen picture-Acc see-Past Q
"Did you see John's picture?"

b. ??/?*John-no* kimi-wa syasin-o mi-ta no?

(11) a. Anta *John-no* syasin-o mi-ta no? (Colloquial speech)
you John-Gen picture-Acc see-Past Q
"Did you see John's picture?"

b. (?)*John-no* anta syasin-o mi-ta no?

(12) a. Kimi-wa *dare-no* syasin-o mi-ta no?
you-Top whose picture-Acc see-Past Q
"Whose picture did you see?"

b. (?)*Dare-no* kimi-wa syasin-o mi-ta no?

(13) a. Anta *dare-no* syasin-o mi-ta no? (Colloquial speech)
you whose picture-Acc see-Past Q
"Whose picture did you see?"

b. *Dare-no* anta syasin-o mi-ta no?

(10) and (11) show that the genitive phrase *John-no* ("John's") can be moved out of DP, though there is some difficulty in (10b). (12) and (13) show that its WH counterpart *dare-no* ("whose") can be moved out of DP without any serious difficulty. Let us continue to consider the examples shown below.

(14) a. Kimi-wa *ano* syasin-o mi-ta no?
you-Top that picture-Acc see-Past Q
"Did you see that picture?"

b. ? *Ano* kimi-wa syasin-o mi-ta no?

(15) a. Anta *ano* syasin-o mi-ta no? (Colloquial speech)
you that picture-Acc see-Past Q
"Did you see that picture?"

b. (?)*Ano* anta syasin-o mi-ta no?

(16) a. Kimi-wa *dono* syasin-o mi-ta no?
you-Top which picture-Acc see-Past Q
"Which picture did you see?"

b. ? *Dono* kimi-wa syasin-o mi-ta no?

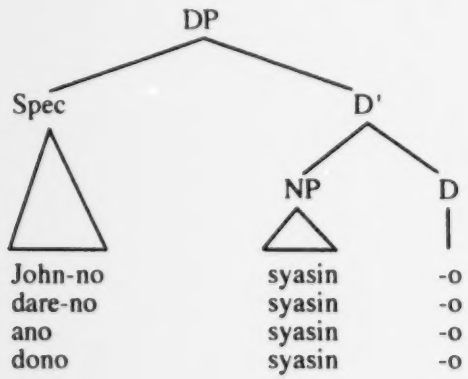
(17) a. Anta *dono* syasin-o mi-ta no? (Colloquial speech)
you which picture-Acc see-Past Q
"Which picture did you see?"

b. (?)*Dono* anta syasin-o mi-ta no?

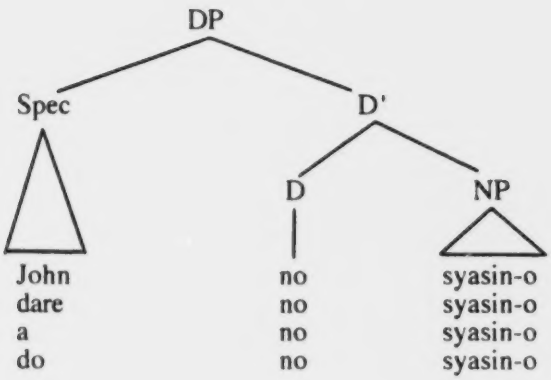
The examples in (14) through (17) show that it is generally possible to extract the demonstrative adjective *ano* ("that") as well as its WH counterpart *dono* ("which") out of DP.

The facts just observed indicate that genitive phrases and demonstrative adjectives as well as their WH counterparts are syntactic objects that are subject to movement operations. Therefore, it is plausible to assume the structure shown in (18a) rather than the one shown in (18b). We should note that if we ignore the Head-Complement order, (18b) is similar to (7b) and (8) in that genitive phrases, demonstrative adjectives, and their WH counterparts, being neither phrasal categories or constituents, do not qualify as syntactic objects that are subject to movement operations. Then, if (18b) is adopted, it will be predicted that they cannot be extracted out of DP (see (4)).[4]

(18) a.



b.



3. Interactions among Demonstrative Adjectives, Genitive Phrases, and WH-Words

Given this minimum background for the structural analysis of DP in Japanese, we are in a position to take a look at how demonstrative adjectives like *ano* ("that"), genitive phrases like *John-no* ("John's"), and WH-words like *dono* ("which") interact with one another. The basic examples we will deal with are shown in (19) and (20).

(19) a. [$_{DP}$ Demonstrative adjective + Noun + CM (= case marker)]:

Kimi-wa [ano syasin-o] mi-ta no?
you-Top that picture-Acc see-Past Q
"Did you see that picture?"

b. [$_{DP}$ Genitive phrase + Noun + CM]:

Kimi-wa [John-no syasin-o] mi-ta no?
you-Top John-Gen picture-Acc see-Past Q
"Did you see John's picture?"

(20) a. [$_{DP}$ Demonstrative adjective + Genitive phrase + Noun + CM]:

Kimi-wa [ano John-no syasin-o] mi-ta no?
you-Top that John's picture-Acc see-Past Q
"Did you see that John's picture?"

b. [DP Genitive phrase + Demonstrative adjective + Noun + CM]:

Kimi-wa [John-no ano syasin-o] mi-ta no?
you-Top John's that picture-Acc see-Past Q
"Did you see John's that picture?"

Let us first consider (19). If we replace *ano* ("that") and *John-no* ("John's") with their WH-counterparts *dono* ("which") and *dare-no* ("whose"), the sentences are still fine.

(21) a. Kimi-wa [dono syasin-o] mi-ta no?
you-Top which picture-Acc see-Past Q
"Which picture did you see?"

b. Kimi-wa [dare-no syasin-o] mi-ta no?
you-Top whose picture-Acc see-Past Q
"Whose picture did you see?"

If however the head noun *syasin* ("picture") in (19) is replaced with its WH counterpart *nani* ("what"), there arises a difference in grammaticality between the two sentences, as in (22).

(22) a. * Kimi-wa [ano nani-o] mi-ta no?
you-Top that what-Acc see-Past Q
"That what did you see?"

b. Kimi-wa [John-no nani-o] mi-ta no?
you-Top John-Gen what-Acc see-Past Q
"John's what did you see?"

Finally, if the head noun *syasin* ("picture") in (21) is replaced with its WH counterpart *nani* ("what"), the following contrast arises.

(23) a. * Kimi-wa [dono nani-o] mi-ta no?
you-Top which what-Acc see-Past Q
"Which what did you see?"

b. Kimi-wa [dare-no nani-o] mi-ta no?
you-Top whose what-Acc see-Past Q
"Whose what did you see ?"

Let us next examine the examples shown in (20). Again, there are three points to be noted. First, if the demonstrative adjective *ano* ("that") is replaced with

its WH counterpart *dono* ("which"), the sentences are still fine.

(24) a. Kimi-wa [dono John-no syasin-o] mi-ta no?
you-Top which John-Gen picture-Acc see-Past Q
"Which John's picture did you see?"

b. Kimi-wa [John-no dono syasin-o] mi-ta no?
you-Top John-Gen which picture-Acc see-Past Q
"John's which picture did you see?"

Secondly, and contrary to the above instance, if the genitive phrase *John-no* ("John's") in (20) is replaced with its WH counterpart *dare-no* ("whose"), both of the sentences are ungrammatical.

(25) a. * Kimi-wa [ano dare-no syasin-o] mi-ta no?
you-Top that whose picture-Acc see-Past Q
"That whose picture did you see?"

b. * Kimi-wa [dare-no ano syasin-o] mi-ta no?
you-Top whose that picture-Acc see-Past Q
"Whose that picture did you see?"

Thirdly, if both *ano* ("that") and *John-no* ("John's") in (20) are replaced with their respective WH counterparts, a contrast between (26a) and (26b) emerges.

(26) a. * Kimi-wa [dono dare-no syasin-o] mi-ta no?
you-Top which whose picture-Acc see-Past Q
"Which whose picture did you see?"

b. Kimi-wa [dare-no dono syasin-o]] mi-ta no?
you-Top whose which picture-Acc see-Past Q
"Whose which picture did you see?"

Let us summarize the findings here. The examples in (21), (22), and (23) indicate that demonstrative adjectives, irrespective of whether they are in the WH form or not, do not co-occur with other WH-words in DP, while genitive phases can co-occur with WH-words. The examples in (24) and (25) again indicate the same point. However, this descriptive generalization does not seem to account for the contrast in (26).

4. Operator Movement and the Position of Demonstrative Adjectives

Before accounting for the data presented in Section 3, let us turn our attention to the recent analysis of WH-words in Japanese. It is argued by Watanabe (1992) that there is an invisible overt movement of an empty operator which is associated with WH-words in Japanese. Under Watanabe's model, it is crucial that the movement takes place in overt syntax rather than in LF. This is illustrated by the following example.

(27) Kimi-wa nani-o katta no?
you-Top what-Acc bought Q
"What did you buy?"

Watanabe argues that although no overt movement operation appears to take place in (27), an empty operator that is associated with *nani-o* ("what-Acc") moves from the inside of IP to the specifier position of CP.[5]

(28) [CP [IP Kimi-wa *nani-o*$_i$ katta] [C no] *Op*$_i$]

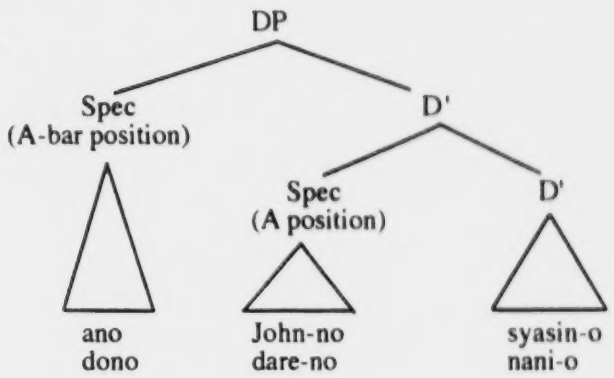
In (29), *ka dooka* ("whether") creates a WH-island, and therefore the oddness of (29) is ascribable to the violation of WH-Island Condition, a case of the Subjacency Condition.[6] The relevant structure of (29) (equal to Watanabe's example (14)) is shown in (30).

(29) ??John-wa [Mary-ga nani-o katta ka dooka]
John-Top Mary-Nom what-Acc bought whether
siritagatte iru no?
know-want Q
"What does John want to know whether Mary bought?"

(30) [CP [IP ... [CP ... *nani-o*$_i$ ... ka dooka] ...] [C no] *Op*$_i$]

We would like to propose that demonstrative adjectives like *ano* ("that"), *kono* ("this"), and *sono* ("the or that") occupy the highest Spec position in DP. In addition to this, we would like to suggest that the position occupied by them is an A-bar position. On the other hand, as argued by Kimura (1994), genitive phrases like *John-no* ("John's") occupy an A position in DP. The same analysis applies to their WH counterparts. This amounts to slightly revising (18a) and proposing the following structure, which is parallel to (2).

(31)



In English, as we discussed earlier, both demonstrative adjectives like *that* and genitive phrases like *John's* occupy the same positions (see (7b)). In addition, as Chomsky (1986: 81) observes, they create an "Island" in DP and block movement out of DP. This is known as the Specificity Condition effects.

(32) a. *Who* did you see [three pictures of *t*] ?

b. * *Who* did you see [that picture of *t*] ?

(33) a. *Who* did you see [more pictures of *t*] ?

b. * *Who* did you see [John's picture of *t*] ?

The Specificity Condition effects arise only when the highest DP Spec position is occupied by elements like *th* and *John* (see (6b) and (7b)). Then, it is predicted that Japanese demonstrative adjectives should behave just like their English counterparts in that they create an Island in DP and block movement out of DP. By contrast, if there exists no demonstrative adjective in DP, the highest Spec position is empty and serves as an escape hatch for movement out of DP. Therefore, it is predicted that movement out of DP should be allowed in such a case.[7] It will shortly be shown below that these predictions are borne out.

Let us first examine the examples presented in (21) to (23). In (21), the DP in question is selected by the verb, and hence it is not a barrier. Therefore, an invisible movement of an empty operator out of DP is permissible.

(34) a. [[Kimi-wa [*dono*$_i$ syasin-o] mi-ta] [no] *Op*$_i$]

b. [[Kimi-wa [*dare-no*$_i$ syasin-o] mi-ta] [no] *Op*$_i$]

Secondly, in (22a), whose relevant structure is illustrated in (35a), although the DP is not a barrier, the invisible movement is blocked by the presence of the demonstrative adjective *ano* ("that"), as we predicted. However, the movement is allowed in (22b), since the highest empty Spec position provides an escape hatch for the operator movement out of DP.

(35) a. * [[Kimi-wa [ano *nani-o*$_i$] mi-ta] [no] *Op*$_i$]

b. [[Kimi-wa [t'_i John-no *nani-o*$_i$] mi-ta] [no] *Op*$_i$]

The above account also holds for (23), though multiple WH-phrases appear in (23). In (23a), the WH phrase *dono* ("which") has the same status as demonstrative adjectives, in that it is in the highest Spec position (see (31)). Thus, it blocks the invisible movement of the empty operator. In (23b), on the other hand, the movement is allowed, since there is no demonstrative adjective and *dare-no* ("whose") occupies the lower position, and therefore nothing prevents movement out of DP.

Let us now turn our attention to the examples shown in (24) to (26). We assume to start with that (20b) derives from (20a) in terms of Scrambling, which takes place in DP, as illustrated in (36). Let us call it DP Internal Scrambling.

(36) a. Kimi-wa [ano [John-no syasin-o]] mi-ta no?

b. Kimi-wa [*John-no* [ano *t* syasin-o]] mi-ta no?

This assumption is based on the premise we established earlier, that demonstrative adjectives like *ano* ("that") occupy the highest Spec position in DP.

We are now in a position to account for the grammaticality of (24). The empty operator associated with the WH-word *dono* ("which") is moved to Spec of CP in (24a) (see (37a)), and then the genitive phrase *John-no* ("John's") is fronted in terms of DP Internal Scrambling (see (37b)).

(37) a. [$_{CP}$ [$_{IP}$ Kimi-wa [$_{DP}$ *dono*$_i$ John-no syasin-o] mi-ta] [$_C$ no] *Op*$_i$]

b. [$_{CP}$ [$_{IP}$ Kimi-wa [$_{DP}$ *John-no*$_j$ [$_{DP}$ *dono*$_i$ t_j syasin-o]] mi-ta] [$_C$ no] *Op*$_i$]

Let us further account for the ungrammaticality of (25). The relevant structures are shown in (38).

(38) a. [CP [IP Kimi-wa [DP ano *dare-no*$_i$ syasin-o] mi-ta] [C no] *Op*$_i$]

b. [CP [IP Kimi-wa [DP *dare-no*$_i$ [DP ano t_i syasin-o] mi-ta] [C no] *Op*$_i$]

Here the movement of the empty operator is blocked by the demonstrative adjective *ano* ("that") occupying the highest Spec position in DP. DP Internal Scrambling does not save the situation, and the structure shown in (38b) is also ruled out.[8]

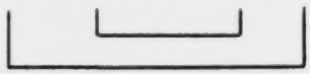
The difference in grammaticality shown in (26) reminds us of the cases illustrated in (39) (see Watanabe 1992).

(39) a. ? Kimi-wa nani-o naze katta no?
you-Top what-Acc why bought Q
"Why did you buy what?"

b. * Kimi-wa naze nani-o katta no?
you-Top why what-Acc bought Q
"What did you buy why?"

In (39a), the argument *nani-o* ("what-Acc") precedes the adjunct *naze* ("why"), but the order is reversed in (39b). In (39a), *nani-o* ("what-Acc") is assumed to be fronted in terms of (Clause Internal) Scrambling. Let us illustrate their structures in terms of simplified representations. (39a) is assumed to have the structure shown in (40), where the empty operator associated with *naze* ("why") moves first to Spec of CP, after which the empty operator associated with *nani-o* ("what-Acc") also moves there.[9]

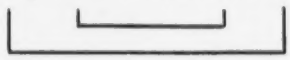
(40) [CP [IP ... *nani-o*$_j$ *naze*$_i$ t_j ...] [[*Op*$_i$] *Op*$_j$]$_i$]



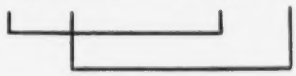
Naze ("why") is bound from Spec of CP. Although *nani-o* ("what-Acc") is not bound by its antecedent, i.e. *Op*$_j$, it is directly selected by the verb and hence the Empty Category Principle (ECP) is satisfied. As the lines indicate, the Path Containment Condition (PCC) is also observed.[10]

Things are different in (39b). Two possible structures could be assigned to (39b), but neither fails to satisfy well-formedness conditions like the ECP and the PCC.

(41) a. [CP [IP ... *naze*$_j$ *nani-o*$_i$ ...] [[*Op*$_i$] *Op*$_j$]$_i$]



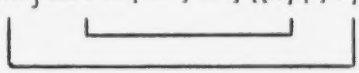
b. [CP [IP ... *naze*$_j$ *nani-o*$_i$ ...] [[*Op*$_j$] *Op*$_i$]$_j$]



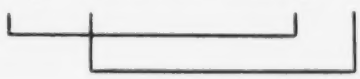
(41a) shows a case in which the empty operator of *nani-o* ("what-Acc") moves first into Spec of CP, after which the empty operator of *naze* ("why") moves there. Since *naze* ("why") is an adjunct, it must be antecedent-governed by *Op*$_j$. However, it fails to satisfy the antecedent government requirement since it is not bound by *Op*$_j$. Therefore, (41a) is out. (41b) is a case in which the PCC is violated, since, as the lines show, there is a crossing. (39b) is out, since it has no well-formed structure.

We would like to account for the contrast in (26) by recourse to the same mechanism just discussed. Note here that, as we have been assuming, the demonstrative adjective *dono* ("which") occupies an A-bar position, just like the adjunct *naze* ("why") does.[11] (26a) is assumed to have the following two possible structures, which are similar to (41).

(42) a. [CP [IP ... [DP *dono*$_j$ *dare-no*$_i$ ...] ...] [[*Op*$_i$] *Op*$_j$]$_i$]

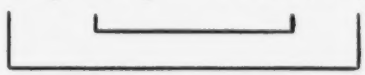


b. [CP [IP ... [DP *dono*$_j$ *dare-no*$_i$ ...] ...] [[*Op*$_j$] *Op*$_i$]$_j$]



By contrast, (26b) is well-formed, since it has the following legitimate structure.

(43) [CP [IP ... [DP *dare-no*$_j$ *dono*$_i$ *t*$_j$ ...] ...] [[*Op*$_i$] *Op*$_j$]$_i$]



To recapitulate, if we assume Watanabe's (1992) operator movement approach, the incompatibility of demonstrative adjectives with WH-words is naturally attributable to the Island effects created by demonstrative adjectives. The contrast in (26) is accounted for in terms of well-formedness conditions like the

ECP and the PCC. Without the hypothesis that demonstrative adjectives like *ano* ("that") occupy the highest A-bar Spec position in DP, the incompatibility of demonstrative adjectives with WH-words observed in the examples will remain unaccounted for.

5. Summary

We have argued here that demonstrative adjectives like *ano* ("that") occupy the highest Spec position in DP, while genitive phrases like *John-no* ("John's") occupy the lower Spec position in DP. The interactions among demonstrative adjectives, genitive phrases, and WH-words are accounted for under our proposal.

It is argued by Kimura (1994) that there is an A position in DP in Japanese. Adopting Kimura's proposal, we may further suggest that the DP structure is similar to the clausal (or CP) structure, in that the A-bar position appears higher than the A position. In line with this suggestion, more articulated DP structures could be proposed. The present paper presents the first step towards such a proposal.

NOTES

* This paper tries to provide a general picture of work still in progress. Comments and suggestions are welcome. I would like to thank Hitoshi Akahane, Jeffrey Gross, Giuseppe Longobardi, and Kentaro Nakatani for discussion and comments. I would also like to thank an anonymous reviewer for helpful comments. All remaining errors are mine.

[1] Clearly *who* and genitive *'s* in (5) cannot be separated. However, there are surprisingly enough speakers who marginally allow (9b). I report this fact in a paper currently in preparation.

[2] Kuno (Harvard Lecture, Fall 1995) reports that extraction out of DP is not allowed in Japanese. However, my informants, including myself, find the examples given in (10) to (15) are not completely unacceptable. What is important here is the fact that no English speaker accepts (4c), but some Japanese speakers

marginally accept its Japanese counterpart.

[3] The purpose of the English translations in double quotes is to help readers understand the structures of the Japanese examples presented in this paper. It should be noted that they are not intended to be the correct translations.

[4] The structure shown in (18b) is incompatible with the head final character of Japanese. However, it does accord with the universal Head-Complement order hypothesis proposed by Kayne (1994). I will not pursue the possibility of (18b), maintaining the general view about the phrase structure of Japanese. In Fukuda 1993, I propose a structure similar to (18a) to account for case marker drop phenomena in Japanese. In the next section, we will slightly revise the structure shown in (18a).

[5] It can be assumed that the empty operator originates inside of WH-words. Since the WH-word is an object of the verb, DP is not a barrier for the operator movement. We basically follow Chomsky 1986 in assuming that if a maximal projection is selected by a lexical category, it is not a barrier.

[6] Lasnik and Saito (1992: 8) suggest that *ka dooka* ("whether") is in the COMP position of S'. If we assume that *ka* and *dooka* occupy the head C and Spec of CP, respectively, the unacceptability of (29) could be accounted for in terms of Relativized Minimality (Rizzi 1990) or Minimal Link Condition (Chomsky 1994).

[7] Kimura (1994: 172-173) observes that demonstrative adjectives do not interfere with A movement out of DP. It may be possible to explain the difference in the Specificity Condition effects between demonstrative adjectives and genitive phrases in terms of Relativized Minimality (Rizzi 1990) or Minimal Link Condition (Chomsky 1994). We could elaborate the argument presented here in line with Longobardi 1991.

[8] One might argue that if the operator movement takes place after DP Internal Scrambling of *dare-no* ("whose"), the construction is incorrectly predicted to be acceptable. However, after DP Internal Scrambling of *dare-no* ("whose"), the genitive phrase serves as an adjunct phrase. If the operator movement takes place from inside of the DP, it moves out of an adjunct phrase. Generally, extraction out of an adjunct phrase is prohibited. Therefore, we can still correctly account for the ungrammaticality of (25b).

[9] We omit a discussion of COMP Indexing Rule to save space. Readers should refer to Watanabe 1992.

[10] For expository purposes, we assume a bi-clausal definition of the ECP. Simply put, the PCC prohibits crossing lines.

[11] If *dono* ("which") is an adjunct phrase, the association between it and the empty operator should be prohibited, as we implied in footnote 7. We tentatively assume here that *dono* ("which") is not an adjunct phrase, though it is in an A-bar position.

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JUDGMENTS OF POLITENESS IN L2 ACQUISITION

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Abstract: This paper examines Japanese ESL learners' perception and production of to whom and how politely one should speak and what expressions are appropriate to whom in American English. Speakers are expected to change the level of politeness, in both American English and Japanese, depending who the addressee is, but the two languages are different in how the speaker weighs factors such as age and status of the addressee and the speaker's familiarity to the in relation to others. Some of the differences between the learners and native speakers seem to be due to negative transfer, especially in terms of the age of the addressee, however others could be attributed to various possible sources as developmental and so on.

Introduction

This study will report three experiments that explore Japanese ESL learners' perception and production of politeness, with the focus on to whom and how politely learners think they should speak in American English. Politeness has been studied by many researchers as a universal phenomenon in human languages. It has been reported that although there are differences between cultures or languages, all languages have ways to realize politeness which keep conflicts between interlocutors low and maintain, or even enhance, smooth human relationships. Brown and Levinson (1987) compare politeness to a 'formal diplomatic protocol' (p. 2), claiming that both aim at enabling communication between groups of 'potentially aggressive parties' (p. 2). According to them, humans universally possess a desire for two kinds of face: 'negative face' and 'positive face'. The definition of each face is given as below;

> Negative face: the basic claim to territories, personal preserves, rights to non-distraction - i.e. to freedom of action and freedom from imposition
>
> Positive face: the positive consistent self-image or 'personality' (crucially including the desire that this self-image be appreciated and approved of) claimed by interactants (p. 61).

Brown and Levinson claim that face could be 'lost' or 'threatened' easily in interaction with others. Some acts are said to be inherently face-threatening. For instance, requesting is an intrinsic face threatening act (FTA) to the addressee's negative face, since it impedes the addressee's freedom to decide future actions; the addressee is pressured to do or not to do the act which he/she would not do or would do, respectively, if the speaker did not make the request.

Brown and Levinson (1987) name three factors that determine the proper level of politeness: the Power of each interactant over the other (P), the Distance between the interactants or familiarity with each other (D), and the Ranking of the severity of face-threat created by the act (R) (p. 15). They suggest that the speaker calculates the proper level of politeness for the situation by putting these three factors into the following formula:

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$$FTA = D(S,H) + P(S,H) + Rx \qquad (S: \text{ speaker, } H: \text{ hearer})$$

Brown and Levinson's account for politeness mainly concerns the generative aspect of politeness, which aims at examining the politeness phenomenon at the interpersonal level. Their theory is widely accepted by various disciplines concerning politeness. However, some researchers are not completely satisfied with it because it is thought too Western-oriented; in some cultures, people recognize themselves more as members of society rather than as independent individuals. Thus, politeness should be captured not only as a phenomenon that occurs between individuals involved in an interaction but it also has to be analyzed in terms of society (Hill et al. 1986; Matsumoto 1988, 1989; Ide 1989). From this standpoint, Hill et al. (1986) propose the distinction of *Wakimae* or 'Discernment' and 'Volition'. Wakimae or 'Discernment' consists of socially constructed rules that determine how one should both verbally and non-verbally behave respecting factors such as the addressee and situation:

> In this aspect of politeness, which we will call Discernment, the speaker can be considered to submit passively to the requirements of the system. That is, once certain factors of addressee and situation are noted, the selection of an appropriate linguistic form and/or appropriate behavior is essentially automatic (p. 348).

Ide (1989) states that Discernment is sociopragmatically as well as grammatically obligatory in certain situations. It is realized by using honorifics, pronouns, speech formulas and so forth (p. 232). Japanese honorifics are strongly related to this aspect of politeness. On the other hand, Volition is not as restricted as Discernment; the speaker can choose the expression more in the way he/she feels, considering his/her own intention. Use of strategies such as 'seek agreement', 'joke', and 'minimize the imposition' are the examples of its realization. Hill et al. (1986) examine Discernment in American English and Japanese and prove that Discernment exists in both languages. They suggest that the difference between the two languages is that Japanese is more Discernment-oriented while American English is more Volition-oriented.

For the purpose of this study, I will adopt the distinction of Discernment and Volition and examine how Japanese ESL learners perceive Discernment in American English and how they realize it in their speech. To second language (L2) learners, the concept of speaking politely is itself nothing new from their first language (L1) experience. However, several studies report that speaking politely presents a major challenge to L2 learners, and that even advanced learners sometimes fail in politeness realization (e.g. Eisenstein and Bodman 1986) due to insufficient learning of pragmatic rules and the lack of linguistic repertoire to realize the intended effect. In this study, I am interested in how Japanese ESL learners may be influenced by their L1's orientation toward Discernment in learning a Volition-oriented L2. Experiment 1 will explore to whom and how politely Japanese ESL learners consider they should speak, and how different it is from the way native speakers of American English speak. Also, the influence of the learners' native language will be examined. Experiment 2 will investigate how similar and how different Japanese ESL learners and native speakers of American English are in the way they perceive the politeness of certain request expressions, along with the mapping of them onto the context: that is, which expressions are appropriate to whom. Experiment 3 will examine the realization of politeness in requests addressed to different addressees. Japanese ESL learners and native speakers' use of linguistic forms will be compared, the reference to the results of Experiments 1 and 2. By having both perception and production tasks, this study attempts to detect what types of the learners' failure in politeness are due to their pragmatic rules and what types are due to their limitation of grammatical competence in realizing their intended politeness.

The subjects in this study are all students of the University of Kansas, and they agreed to participate in the experiments voluntarily. There are two groups of Japanese ESL learners involved in this study, and they differ in the level of English proficiency. One of the groups consists of the subjects who are not enrolled in any ESL courses. It means that:

1. They have TOEFL scores higher than 570, with the minimum of 57 in each sections, and Writing test score higher than 5.0, or
2. They have passed a diagnosis test the university's ESL institute arranged to determine whether the student's language proficiency is high enough to enroll in regular classes.

They will be called Advanced Japanese ESL learners or JA in this study. The other group consists of subjects who are taking one or more ESL courses. They will be called Intermediate Japanese ESL learners or JI.

Experiment 1

Purposes of the Experiment The aim of this experiment is to examine Japanese ESL learners' perception of to whom and how politely one should speak in American English. Such perception is supposed to be based on their ideas of Discernment in American English: whether it exists, what factor is more valued than others in determining the Discernment in a certain relationship and so on. This experiment is especially interested in the influences of the addressee's age and familiarity to the addressee in determining the level of politeness. The age of the addressee is often said to be a very important factor in Japanese Discernment. In this experiment, I am interested in how Japanese ESL learners perceive the role of the age factor in American English, and how it differs from that of native speakers and from that of native speakers of Japanese.

Subjects Four groups of 18 people participated in this experiment as subjects. The first group consisted of native speakers of American English (hereafter, AE). Their age ranged form 19 to 28, and the average was 22 years old. They were mainly from the Midwest, however, four of them were from the South and one was from the West Coast. The second group was Japanese advanced ESL learners (JA). Their age ranged from 20 to 28, with the average being 24.1 years of age. The average length of stay in the United States was 2.2 years. The subjects in the third group was Japanese intermediate English learners (JI). They were from 19 to 29 years old, and the average was 22.6 years old. Their average length of stay in the United States was 1 year. The fourth group consisted of native speakers of Japanese (JJ). Their ages varied from 19 to 30 years old . The average was 23.9 years old. All groups consisted of 9 male and 9 female subjects.

Procedure[1] The subjects were given 16 cards, each of which had a brief description of a person (e.g. professor, classmate and police officer) in a situation they would encounter in their daily life. They were asked to rate the situations based on their judgment how as to politely they should speak. To begin, the subjects ranked the situations in graded order according to thought they think they should speak politely. Then, they rated them along a 10-point scale, 10 meaning most polite and 1 the least (however 1 did not necessarily mean that they could be rude or mean to the person). They were told that they could use the same point as many times as they wanted in addition to not having to use all the points from 10 to 1. AE, JI and JA went through the procedure in English and JJ in Japanese.

Material Below is the list of people the subjects rated based on how politely they would speak. Each situation involves very low, if any, face threat for the speaker. The influence of the audience was kept minimum in each case.

a. A middle-aged clerk at a department store.
b. The landlady/landlord of the apartment where you want to rent a room.

c. A middle-aged stranger who is asking you for directions.
d. A classmate of yours with whom you did a small project together before. You know that he/she is two years younger than you.
e. A middle-aged police officer who stoppec you on the highway to check if you are not drunk.
f. A high school student whom you do not know. You and him/her are waiting for a bus. He/she is asking you if you know when the next bus will come.
g. A middle-aged waiter/waitress at a small coffee shop. You do not know him/her personally.
h. The professor of a class you are currently taking. This is the first semester for you to take his/her class. You are asking him/her a question in his/her office
I. A classmate of yours with whom you did a small project before. You know that he/she is two years older than you.
j. Your close friend who is visiting you in your room.
k. Your younger brother/sister at home.
l. A classmate of yours who is of your age. You did a small project with him/her before.
m. A middle-aged clerk at a small candy shop. You do not know her personally.
n. Your older brother/sister at home.
o. A classmate of yours who is 15 years older than you. You did a small project with him/her before.
p. Your mother at home.

Each situation was given on a separate card. JJ used a Japanese version of the cards.

Data Analyses Below is the average scores of the sixteen situations rated by each group.[2]

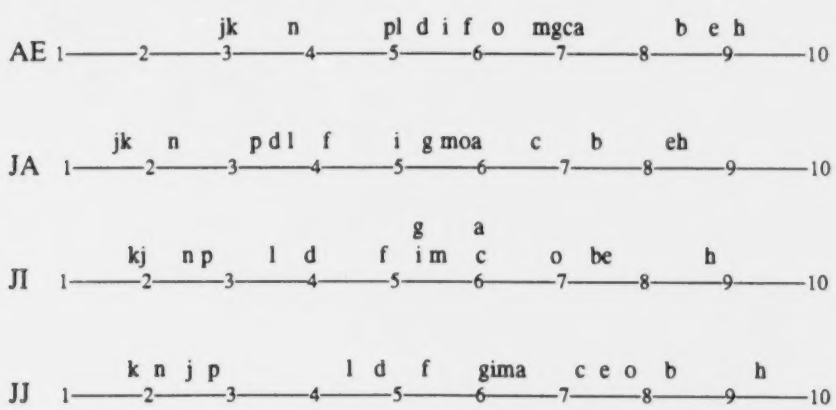
AE jk n pl d i f o mgca b e h
1 2 3 4 5 6 7 8 9 10
JA jk n p d l f i g moa c b eh
1 2 3 4 5 6 7 8 9 10
JI g a
kj n p l d f i m c o be h
1 2 3 4 5 6 7 8 9 10
JJ k n j p l d f gima c e o b h
1 2 3 4 5 6 7 8 9 10

Figure 1
The average rating of the 16 situations

In Figure 1, all groups showed a similar tendency toward the ends of the scale. The subjects gave high ratings to the situations that involved addressees with authority over the speakers as in 'b' (landlady/landlord), 'e' (police officer), and 'p' (professor). These addressees were in positions which could affect the speakers' life by the jobs they do or the decisions they make. It seems that the subjects considered they would put more efforts on face preservation to people against whom face loss could prove more costly. On the other hand, their ratings were very low when the addressees were close to the speakers as in 'j' (friend), 'k' (younger brother/sister), 'n' (older brother/sister) and 'p' (mother).

The groups were proven to be different, however, when details were analyzed by the sign test[3]. One of the causes of such differences seems to be the way that each group perceived the power relationship between the speaker and addressee. In 'a' (department clerk), 'g' (waiter/waitress) and 'm' (candy shop clerk), the speaker was a customer to the addressee. When the three situations were compared with 'c' (stranger on the street), AE and JI's responses agreed. There was no significant difference among 'c' and the three situations. On the other hand, JA and JJ were the same in that they rated 'c' significantly higher than 'a', 'g' and 'm'. This result may indicate that JA and JJ considered that the speakers' role as customers gave them power over the addressees, and that it allowed them to speak less politely in 'a', 'g' and 'm' in comparison with 'c', where the addressee was a 'neutral' stranger.

In terms of 'e' (police officer), where the addressee had authority and power over the speaker, AE and JA were in accordance. They rated 'e' significantly higher than the other middle-aged stranger situations ('a': department clerk, 'c': stranger, 'g': waiter/waitress, and 'm': candy shop clerk) ($p<0.05$). Unlike AE and JA, JJ responded that 'e' required more politeness than the clerk-waiter/waitress situations ('a', 'm' and 'g'), but there was no significant difference to 'c'. JI's judgment was rather similar to JJ's; 'e' was rated politer than 'm' and 'g', but no significant difference was detected between 'e' and 'a', and 'e' and 'c'. It may be said that JJ did not perceive police officers as having as much authority as AE did. JI may have transferred this perception to their L2, but JA seems to have already adjusted their perception to the way the native speakers did.

In both Japanese and American English, the age of the addressee seems to be one of the determinants of the level of politeness, at least in some situations. In the comparison of 'c' (middle-aged) and 'f' (high school student) which involve strangers on the street as addressees, all groups rated 'c' significantly higher than 'f' ($p<0.05$). It is not clear in this comparison, however, whether this result was due to the addressees' relative age (they were older than the speaker), absolute age (they had reached a certain age to deserve to be spoken to politely), or both. The effects of addressees' absolute age is beyond the design of this experiment, but the subjects' sensitivity to the relative age of the addressee could be analyzed by the comparisons of the classmate situations. In the comparison of 'd' (classmate: 2 years younger), 'i' (classmate: 2 years older), 'l' (classmate: the same age) and 'o' (classmate: 15 years older), the subjects in all four groups rated 'o' significantly higher ($p<0.05$) than the other three classmate situations. The groups were different, however, in how much age difference was large enough to cause the difference in the politeness level. AE subjects made no significant difference among the 'd', 'i' and 'l', indicating that the difference of two years did not matter to them. On the other hand, JA, JI and JJ rated 'i' significantly higher than 'l'. When the addressee was younger than the speaker, the responses of the Japanese subjects did not completely agree to each other. In JI, rating of 'd' was significantly higher than that of 'l' ($p<0.05$), while the other Japanese groups, JA and JJ did not make any significant difference between them ($p<0.05$).

An interesting contrast appeared between AE and JJ in how high they rated 'o' in relation to the others. It can be seen in Figure 1 that JJ's rating of 'o' was quite high. Indeed, JJ never rated 'o' lower than any stranger situations. They rated 'o' as high as 'c' and 'e' and significantly higher than the clerk-waiter/waitress situations and 'f' (stranger: high school student) ($p<0.05$). On the other hand, AE's ratings to the strangers were always significantly higher or the same but never lower than those to acquaintance, regardless of the addressees' age. They rated 'o' significantly lower than 'a', 'c', 'f' and 'm', and the same as 'g' ($p<0.05$).

The responses of JA and JI were in between the two extremes of AE and JJ. In JI's judgment, 'o' was significantly politer than 'f', 'g' and 'm', and it was the same as 'a', and 'c'. In JA's case, 'o' was significantly politer than 'f', but there was not any significant difference between 'o' and 'a', 'c', 'g' and 'm'. Generally speaking, JA's responses were closer to AE than JI's in these cases; the four middle-aged stranger situations were rated as high as the 15 year-older classmate

situation, while only two were rated the same as the classmate situation in JI. It would be fair to conclude that such a high rating of 'o' was transferred from the L1 of the subjects. Japanese seems to require its speakers to be especially polite in speaking to an acquaintance who is much older than him/her, and the ESL learners carried on the L1 rule to their L2. In relation to the familiarity factor, American English seems to value it more than Japanese. Regardless of the age of the addressee, and whether the addressee was serving to them or just a stranger on the street, the native speakers of American English responded that they would speak more politely to an addressee whom they did not know personally. On the other hand, the native speakers of Japanese were more influenced by age and the server-customer relationship with the addressee, and these factors could overwhelm the familiarity factor in the impact on the decision in the level of politeness. JA and JI were under the influence of such L1 rule, and this tendency was stronger in JI.

Experiment 2

Purposes of the Experiment This experiment is an attempt to examine how Japanese ESL learners perceive politeness levels of some expressions for request and to whom they think those expressions are appropriate. For request expressions, the focus will be especially on the perception of modals in the request forms.

Subjects Subjects were 54 university students from 19 to 31 years old. They were divided into 3 groups, AE, JA and JI, and each group consisted of 9 males and 9 females. AE, native speakers of American English, were mainly from the Midwest but included 1 from the East, and 2 from the West. The average of their age was 23.9 years old. The subjects in JA were advanced learners, whose average age was 24.8 years old. Their average length of stay in the United States was 2.8 years. JI consisted of intermediate learners. Their average age was 22.5 years old, and they had stayed in the United States for 1.1 years on average at the time of the experiment.

Procedure This experiment consisted of two parts. In Part 1, the subjects were given a list of expressions that could be used to ask for the salt, and they were asked to rate the politeness of each expression along a 10-point scale. To do this, they started with ranking the expressions from the most to the least polite and then rated the most polite 10 and least polite 1 respectively. After that, they rated the rest along the 10-point scale. They were allowed to use the same point as many times as needed. Also, they did not have to use all the points.

In Part 2, the subjects were given three situations with different addressees and asked which of the 9 expressions they could use in each situation. The three situations were as following:

1)You are dining at the university cafeteria with one of your professors and some other people. You are going to ask the professor to get you the salt. You are taking his/her class for the first time this semester, and you do not know him/her very well. Consider that you are dining with him/her not because you are close to him/her but because you know other people in the group well, and you happened to have a chance to have lunch with him/her.
2)You are dining at the university cafeteria with your close friend. You are going to ask him/her to get you the salt.
3)You are dining at a small coffee shop. You are going ask a waiter/waitress to get you the salt.

In either situation, the atmosphere is very casual.

The subjects were asked to choose not just the best ones but all expressions that would be appropriate. They could choose as many expressions as they wanted, and also they could choose

the same expressions to two or more situations. After making their choices, the subjects wrote down if there were any expressions they did not choose for reasons other than politeness.

Material Below is the list of the expressions the subjects rated. Each expressions were given on a separate card.

a. Could you get me the salt?
b. Would you get me the salt?
c. Will you get me the salt?
d. Would you mind getting me the salt?
e. I need the salt.
f. Can you get me the salt?
g. I'd appreciate it if you would get me the salt.
h. Get me the salt.
I. Can't you get me the salt?

Data Analyses

Part 1: Below are the averages of the points each group gave to the 9 utterances to request the salt[4].

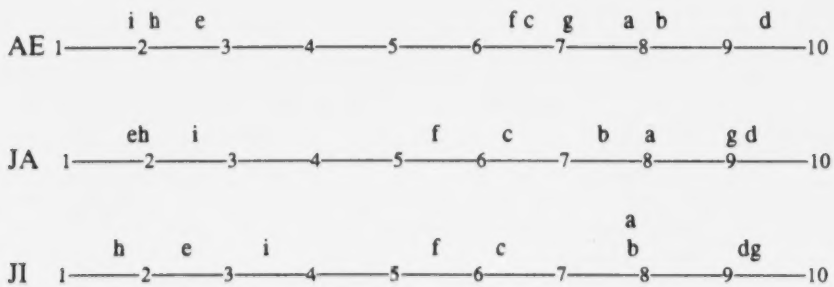

Figure 2
The average rating of the expressions for request

The distribution patterns of the 9 expressions on the scale were relatively similar among the three groups although some differences existed. All groups gave very high points to 'd' (would you mind---?); as a result of the sign test, it was found that 'd' was rated significantly higher than any other expression except for 'g' (I'd appreciate it ---.) in JA and JI, who rated 'g' as high as 'd'. In fact, 'g' seemed to be more complicated than the other expressions for the subjects to judge the level of politeness; many subjects especially those in AE took more time for the rating of 'g'. After a small moment of consideration, some decided to rate it relatively low, commenting that the expression was too polite for requesting the salt and thus sounded somehow sarcastic. It seems that requesting for the salt was a small favor for them, therefore the R (rank) of this situation did not match the expression, which created the impression that the expression was not so polite. Most of JA and JI rated 'g' high.

Next to 'd' were 'a' (could you ---) and 'b' (would you ---), and as a result of the sign test, 'a' and 'b' did not differ significantly in all groups ($p<0.05$). Expressions 'a' and 'b' were followed by 'c' (will you ---) and 'f' (can you ---), which were significantly lower than 'a' and 'b'. JA's judgment of 'c' and 'f' were different from AE and JI; JA judged 'c' significantly politer than 'f', but there was no significant difference in AE and JI's judgment of 'c' and 'f' ($p<0.05$). It is not

known why the intermediate learners were closer to the native speakers than the advanced learners in the response about 'c' and 'f'.

In Figure 2, it is noticeable that there is a large gap between 'f' and the rest of the expressions below it in all groups; indeed, all groups rated 'e' (I need the salt), 'h' (Get me the salt) and 'i' (Can't you get me the salt?) significantly lower than the others located higher on the scale. These three expressions were rated the same in the level of politeness by AE and JA ($p<0.05$), but JI rated 'i' significantly higher than 'h'. There was no significant difference between 'e' and 'h' as well as 'e' and 'i'. There will be more discussion on this matter below.

In terms of the linguistic forms, requests with subjunctive forms ('a': could you ---?, 'b': would you ---?) were rated significantly higher than their non-subjunctive counterparts ('f': can you ---?, 'c': will you ---?) in all groups ($p<0.05$). In ESL acquisition, this rule might be learned relatively early. As for the comparison of can/could ('f'/ 'a') and will/would ('c'/ 'b'), there was no significant difference between 'f' and 'c' or 'a' and 'b' in AE and ($p<0,05$). However, JA did not differentiate 'c' and 'f' significantly but did so with 'a' and 'b' ($p<0.05$).

Data Analyses

Part 2: For each situation, two types of graphs are presented. One type shows the number of subjects who chose each of Expressions 'a' to 'i' for each addressee (Figures 3 to 5), and the other type shows the number of subjects who chose the expressions rated as each of the point 1 to 10 (Figures 6 to 8).

As can be observed in Figure 3 and Figure 6, the three groups generally agreed about the professor situation in that the subjects preferred the expressions that were rated relatively high and avoided those rated low in Part 1. In AE, 'd' (chosen by 89% of the subjects), 'a' (61%) and 'b'(56%) were the three most preferred expressions. As for the Japanese subjects, 'b' (78%), 'd' (72%) and 'a' (67%) for JAs, 'b' (89%), d (83%) then 'a' (72%) for JI, were the most preferred expressions. Also, 'e', 'h', and 'i', which were shown to be rated much lower than the others in Part 1, were not used at all by any one in any group in the this situation.

As can be seen in Figures 4 and 7, the friend situation showed more variation in the subjects' responses in comparison with the professor situation. The shapes of the lines are obviously different between Figure 6 and Figure 7. In the professor situation, the lines are more or less like a regressive line from the upper left corner to the lower right corner. However, in the friend situation, the lines tend to stay around the center. This is more obvious in JA and JI than AE; AE shows a regressive line even in the friend situation, but it is not as sharp as it is in the professor situation. This indicates that the friend situation may allow expressions of a wider range of politeness level. This tendency can be observed also in Figure 4. In the professor situation, only three out of the nine expressions ('a', 'b' and 'd') were chosen by more than half of the subjects in each group. However, in the friend situation, five in AE and JA and seven in JI were chosen by more than half.

In the waiter/waitress situation, the graphs showed more or less a regressive line from the upper left corner to the lower right corner as in the professor situation (Figure 8). This tendency seems to be particularly distinguishable in AE in comparison with the other two groups. The most preferred expression was 'a' (could you ---?) in all the three groups (AE 72%, JA 89% and JI 72%). Other expressions supported by more than half of the subjects are 'd' (61%) and 'b' (59%) in AE, 'c' (72%), 'f' (72%) and 'b' (61%) in JA and 'b' (61%) and 'f' (61%) in JI.

Now, let us move to the subjects' choice of the nine expressions: which one is appropriate to whom. The three groups showed similar shapes in the graphs for 'c', 'd', 'e', 'f' and 'h' (see Figures 11, 12, 13, 14, and 16) in that they all showed an increase of frequency at the friend

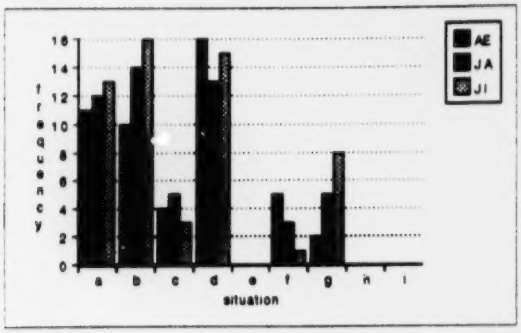

Figure 3
The frequency each expression was chosen for the professor situation

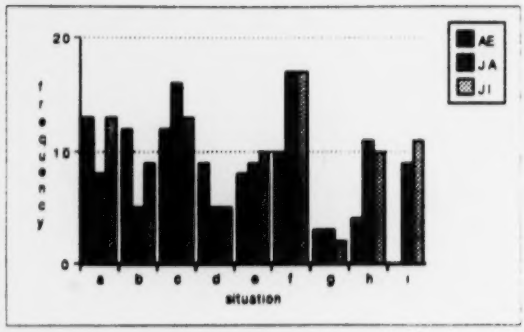

Figure 4
The frequency each expression was chosen for the friend situation

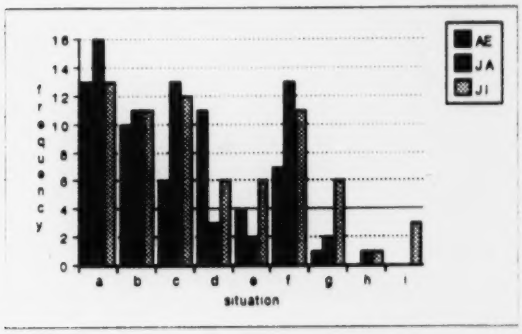

Figure 5
The frequency each expression was chosen for the waiter/waitress situation

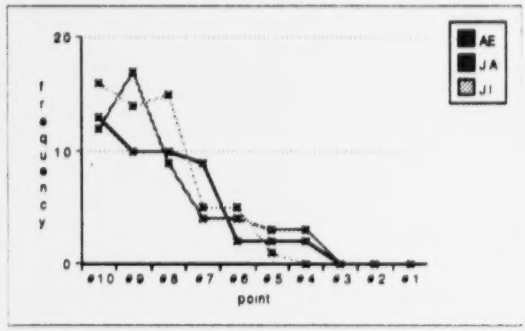

Figure 6
The frequency expressions rated as each point were chosen for the professor situation

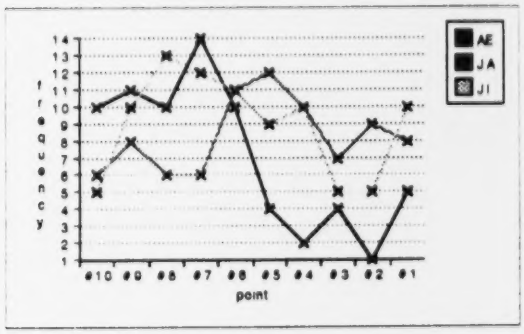

Figure 7
The frequency expressions rated as each point were chosen for the friend situation

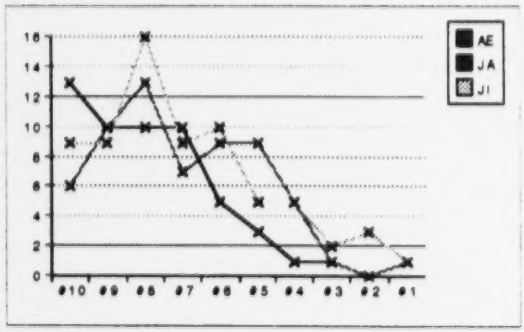

Figure 8
The frequency expressions rated as each point were chosen for the waiter/waitress situation

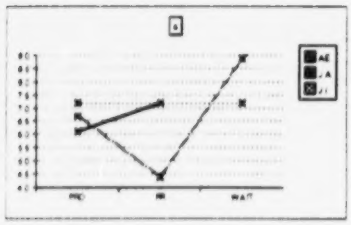

Figure 9

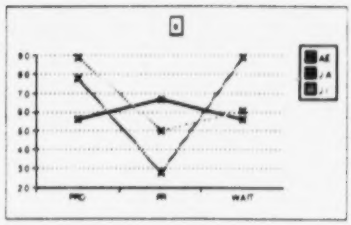

Figure 10

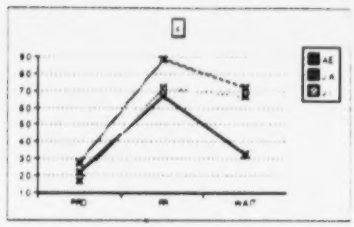

Figure 11

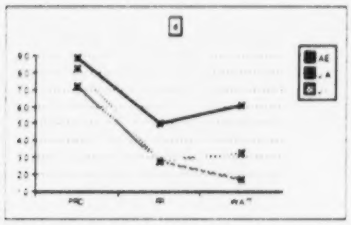

Figure 12

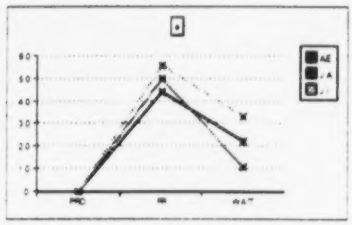

Figure 13

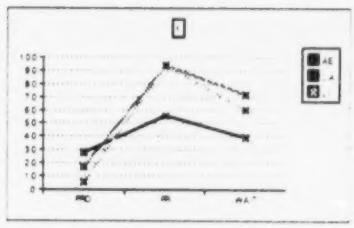

Figure 14

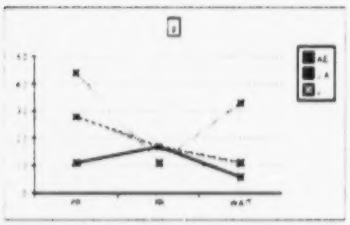

Figure 15

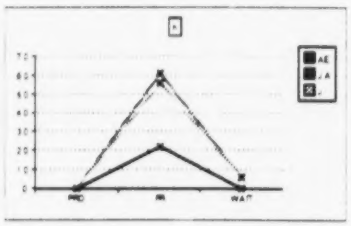

Figure 16

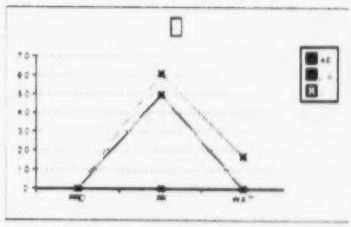

Figure 17

Figures 9 to17
The frequency the expression was chosen for each of the situation

situation in 'e', f', and 'h' and decrease at the friend situation in 'c'. However, the groups showed difference in the degree these expressions were preferred or disapproved to each of the addressee. As for 'f', Japanese subjects' preference for the expression was much higher than AE's for the friend situation (94%). Indeed, only one subject each from JA and JI did not choose it. This may be partly because of the prescriptive instructions native speakers received in the earlier stage of their life. To the question of whether there were any expressions they did not choose for reasons other than the level of politeness, two AE subjects answered that 'f' did not have the pragmatic force of requesting. According to them, since you know that your addressee is able to do the conduct, you should not ask if he/she 'can'. One of them added that she was told not to use the linguistic form for a request when she was a child. It is possible such instructions may have affected some of the native speakers' perception of the expression including of those who did not comment on it.

Expression 'h' was also preferred by Japanese subjects much more often than AE subjects for the friend situation. This expression seems to be not polite enough for use in the other situations, but two thirds of JA and JI considered that it was acceptable when used to friends. However, only one fifth of AE chose it even for the friend situation.

In some expressions, there were noticeable differences in the shapes of the graphs across the groups. In 'a' (Figure 9), JI did not show any difference depending on the situations. They probably perceived this expression as a standard or 'safe' request that they could rely on relatively freely regardless of the situation. In JA, on the other hand, less subjects chose 'a' in the friend situation than in the others perhaps because they considered it was too polite in the friend situation. The same tendency was observed in 'b' (Figure 10), which was agreed to by JI in this case. Considering the fact that 'b' was the second most preferred expressions among AE (67%), it would be fair to say its frequency in JA (28%) was remarkably low. As JA and JI's ratings of 'a' and 'b' were not particularly higher than AE's in Part 1, it could be said that this was because of the way JA and JI perceived the friend situation.

Expression 'g' was not chosen very often by any group (Figure 15) for the level of the politeness rated in Part 1 of this experiment. As discussed in the analyses of Part 1, some AE subjects seem to have rated 'g' lower because the expression was too polite for a small request, and as a result sounded sarcastic and less polite. JI's perception seems to be less influenced by such sociopragmatic effect; they had the tendency to rate it very high . There were other reasons 'g' was avoided. Three AE and one JA subjects wrote that it was too wordy. One AE and two JA subjects responded that it did not sound like something they would ever say. One JI subject translated it into Japanese and added that it sounded arrogant to her; that is, she seems to have consulted her L1 to handle an expression unfamiliar to her.

For 'i', 50% of JA and 61% of JI considered that they could say that to their close friends, but none of AE answered they could (Figure 17). Three of AE wrote that they did not choose it because the wording sounded strange or incorrect to them. In regard to the average rating, 'i' was the lowest of all in AE, although there was no significant difference among the three lowest, 'e', 'h', and 'i'. In JA and JI, the average of 'i' was higher than 'e' and 'h'. As a result of the sign test, 'i' was not significantly higher than the other two in JA, but JI's rating of 'i' was higher than that of 'h'. This may indicate that even though the result was not always significant, there may have been the tendency among JA and JI to perceived 'i' more polite than AE did. At the same time, as shown earlier, JA and JI seemed to allow very low politeness expressions in the friend situation, and this tendency may have worked together for the obtained result.

Experiment 3

Purposes of the Experiment This experiment aims at analyzing Japanese ESL learners' production of requests. It will examine how the learners differentiate the use of linguistic forms depending on

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who the addressee is. In relation to the other two experiments, this one is to investigate the gaps that exist between the perception and production of American English by Japanese ESL learners.

Subjects Subjects of the experiment were three groups of 15 people (7 male and 8 female). The groups were native speakers of American English (AE), advanced English learners of Japanese (JA) and intermediate English learners of Japanese (JI). The age of the subjects ranged from 19 to 31 in each group. Most of AE were from the Midwest, but there were three from the West and one from the South. The average age of AE was 22.9 years old. The average ages of JA and JI were 24.2 and 22.1 years old respectively. At the time of the experiment, the subjects in JA had stayed in the United States for 2.9 years and JI for 1.2 years on the average.

Procedure The subjects were asked to talk to a tape recorder imagining that they were leaving a message on an answering machine as prompted in the following situations:

> You are calling your _____ to cancel an appointment you have made for this afternoon. You wanted to meet him/her to pick up your paper, but since you cannot come today, you want him/her to leave it with your department secretary. Suppose this does not give _____ any extra trip to the department office or any considerable trouble.

_____ was either (a) your professor whose class you are taking for the first time, or (b) your close friend. Half of the subjects performed the task in the order of (a), (b) and the other half did in the order of (b), (a). The subjects were randomly assigned to one of the two orders. They were allowed to think about what they were going to say before the performance, since it would be common in a real situation.

Data Analyses Generally speaking, the subjects tended to rely on formulaic expressions rather than being creative in requesting. The expressions employed by the subjects can be roughly classified into the following five categories:

1. Interrogative (e.g. Could you ----?)
2. conditional (e.g. If you could ---, it would be ----.)
3. expression of personal desire (e.g. I want you to ---)
4. please + imperative (e.g. Please do it.)
5. I was (am) wondering if ---.

Tables 1 and 2 shows the frequency each group employed each type of the utterance to their professors and to their close friend respectively.,

	AE	JA	JI
interrogative	3	10	11
conditional	5	1	0
personal desire	0	4	1
please+imperative	0	0	1
I was wondering ---	7	0	0
others	0	0	0

Table 1
The frequency each type of the expressions was used in the professor situation

	AE	JA	JI
interrogative	4	8	9
conditional	4	2	0
personal desire	1	3	2
please+imperative	1	2	3
I was wondering ---	1	0	0
others	5	0	1

Table 2
The frequency each type of the expressions were used in the friend situation

In the professor situation, seven out of 15 subjects in AE employed 'I was wondering ---', and it was the most common expression among AE subjects. To the contrary, none of Japanese subjects used it. It may suggest that the expression be not yet in their production repertoire even for advanced learners. If so, it could be said that the expression is acquired relatively late. Likewise, the use of conditionals was also common among AE, however, JI never used this type of utterance in either situation. This type of utterance may not have been acquired yet as a productive repertoire by JI. As for JA, it was used only twice in each situation.

The type of utterance most common among the Japanese ESL learners was the interrogative; two thirds of JA and JI chose to use this type of linguistic form in the professor situation, and it was also very popular in the friend situation. On the other hand, only one fifth of AE chose it in the professor situation, and the tendency also existed in the friend situation. This result may be due to the influence of classroom instructions. It is possible that interrogative formulae were the most accessible expressions for the ESL learners in requesting because they are often the most practiced type of linguistic structure for a request in the classroom.

In the professor situation, none of AE used expressions of 'personal desire'(Mitchell-Kernan and Kernan 1977). This type of expression was not common among the Japanese subjects either, but there were three JA subjects and one JI subject who chose it. The other expression never used by AE in the professor situation is 'please + imperative', and this was also the case in JA. However, three of JI employed it. In Experiment 1, it was shown that Japanese ESL learners seemed to believe that speaking to their professors required a considerably high degree of politeness. Therefore it would not be because JI underestimated the required level of politeness in this situation. It would be probably that the learners who chose those expressions may have estimated the level of politeness the expressions could convey higher than the native speakers did, and/or it may be the reflection of the limitation of the subjects' grammatical competence.

Speaking of grammatical competence, the linguistic forms JI employed, in both the professor situation and the friend situation, were limited in three of the five categories (interrogatives, expressions of personal desire, and please + imperative) and the one listed as 'others', which was an expression of obligation:

You should leave my paper to the department secretary (JI-6).

All these expressions could be completed by a linguistic formula often taught in Japanese English classes (e.g. can you ---?, would you mind ---?) plus the act the speaker wants the addressee to perform. The other types of utterance, conditionals and 'I was wondering if ---' allow a wider variety of expressions to be followed to the formulaic portion and involve more decisions and choices of linguistic structures:

1. I wonder if you wouldn't mind leaving the paper with the department secretary. (AE-7: to professor)
2. I was wondering if it was possible for you to leave it with your department secretary. (AE-13: to friend)
3. If you can leave it at the secretary's office, that would be wonderful. (AE-6: to professor)
4. If it's possible and easy for you, you can leave it with my department secretary. (AE-4: to professor)

Tables 3 and 4 show the use of modals in interrogative expressions to professors and close friends respectively.

	AE	JA	JI
Would you mind---?	1	2	2
Would you---?	0	6	0
Could you---?	2	2	8
Will you---?	0	1	0
Can you---?	0	0	1
	3	10	11

Table 3
The frequency of the use of modals in interrogatives in the professor situation

	AE	JA	JI
Would you mind---?	0	2	1
Would you---?	0	3	1
Could you---?	3	1	4
Will you---?	0	2	0
Can you---?	1	1	3
	4	8	9

Table 4
The frequency of the use of the modals in the friend situation

Even though the size of the data is small, there is a noticeable tendency that AE and JI preferred 'could you ---?', while JA preferred 'would you ---?'. The reason for this is unknown. It may be because JI depended on the formula that they felt were 'safe', while JA was exploring the possibility of other expressions as well.

The other interesting difference among the groups is the use of 'please' and 'just'. Of the three interrogatives in the professor situation in AE, one was accompanied with 'please' (could you please ---?) and one with 'just' (could you just ---?). In the friend situation, of the five interrogatives, two used the modifiers (one 'please' and one 'just'). As for JA, there were 10 interrogatives in the professor situation, and three 'would you ---?' and one 'will you ---?' utterances were modified by 'please' following right after them. The use of 'just' was relatively less common than that of 'please' among JA, and there was only one instance that used it (could you just ---?). In the friend situation, out of eight interrogatives, only one each accompanied 'please' and 'just' ('will you please ---?' and 'would you just ---?'). No one in AE and JA used both 'please' and 'just' in an utterance. In JI, either 'please' or 'just' was never used for the interrogatives in their 11 interrogatives in the professor situation or in the 9 interrogatives in the friend situation. One possible explanation for this is that the number of politeness strategy JI could use in an utterance was smaller than AE and JA. It could be also that JI's understanding of the

pragmatic forces of 'please' and 'just' were different from those of AE and JA. Further studies are necessary.

The subjects sometimes modified their main linguistic structures for request by inserting a conditional phrase such as 'if you have time'; all groups had four subjects who did so for the professor situation, while one in AE and four in JA and JI for the friend situation. JA and JI always located such phrases either at the top or the end of the utterance, but AE sometimes added them in the middle of the utterances.

The use of subjunctives also showed difference across the groups. In the professor situation, each group had the same number of the subjects who produced the request only with subjunctives. That means if the requesting part consisted of two phrases, both of them were subjunctive phrases. Ten out of 15 subjects employed only subjunctive phrases
for requesting. In the friend situation, the number of 'subjunctive-only requesting' decreased, and only five of both JA and JI chose to do so. On the other hand, 11 AE subjects employed subjunctive-only requesting in the friend situation. In Experiment 2, JA and JI had a tendency to accept less polite expressions to their friends than they did to their professors. AE also had the same tendency, but it was not to the same extent. The result shown on Table 5 may reflect such perception of JA and JI in American English. To JA and JI, the difference of the nature of required politeness between the two situations may be much larger than to AE. Also, it may have been the main strategy for JA and JI to elevate the level of politeness. In other words, JA and JI relied more heavily on the use of subjunctives in making their utterances more polite than AE.

AE	professor	friend
subjunctive	10	11
non-subjunctive	2	2
mixed	3	2

JA	professor	friend
subjunctive	10	5
non-subjunctive	4	9
mixed	1	1

JI	professor	friend
subjunctive	10	5
non-subjunctive	4	10
mixed	1	0

Table 5
The use of subjunctives in the professor situation and the friend situation

Some previous studies claim that impersonalization be a strategy that is rarely employed by ESL learners (e.g. Scarcella and Brunak 1981). The claim holds some truth with the subjects in this study, too. In AE, six subjects employed the strategy in the professor situation and one in the friend situation. The strategy seems to be for the effect of high degree of politeness as in the professor situation. For Japanese subjects, that was not necessarily the case; one JA subject in the friend situation and two JI subjects in each situation employed it. It means that the strategy was not absent in JA and JI, but that it was not employed very often.

Finally, another characteristic of Japanese subjects was the repetition of the request in different forms; some of the JA and JI repeated the message twice or sometimes even more. In JA, one subject in the professor situation and two in the friend situation repeated the request twice. As for

JI, two in the professor situation and three in the friend situation repeated two to four times. This probably reflects their concern as to whether their intention would be fully understood. In that sense, it could be said that they were concerned with the maxim of manner more than the maxim of quantity (Levinson 1983)5. Repetition was observed also in apologizing, telling that the subject had to cancel the appointment, telling that getting the paper back was important for them and saying 'thank you' to close the message.

Conclusion

This study has examined Japanese ESL learners' perception and production of politeness, especially in relation to their knowledge of Discernment. Although there were a number of cases in which the Japanese ESL learners and the native speakers were similar, there were also cases where differences between them were obvious. In Experiment 1, Japanese ESL learners transferred their L1 knowledge of Discernment to the target. They were very sensitive to the addressee's age especially when he/she was a much older acquaintance. On the other hand, their sensitivity to the familiarity factor seemed not to be enough in some cases. In Experiment 2, the variety of the politeness Japanese ESL learners thought they could use for the friends was wider; the subjects responded that they could use very polite expressions as well as the least polite ones. The native speakers also showed the similar tendency and refrained more from the least polite expressions. Also, Japanese ESL learners' perception of politeness in some expressions seemed to be different from that of the native speakers. In the production task in Experiment 3, the causes of the learners' difference from the native speakers were not always clear. However, some reasons seemed to be attributable to the difference in the rules the learners perceived in American English, and some were probably due to their lack of grammatical sophistication.

The effects of L2 proficiency was not very simple. The advanced learners were not always closer to the native speakers than the intermediate learners in their judgment. In some cases, as in the impact of the age factor, the advanced learners were closer to the native speakers. However, in some cases, as in the comparisons of the situation with a middle-aged stranger on the street and the clerk and waiter/waitress situations, the intermediate learners were closer to the native speakers. There could be several possible explanations for this. One such possibility is that the advanced learners once had a rule that was closer to the native speakers but gave up temporarily to test other possibilities. Or the strategy the intermediate learners employed happened to lead them to the native speakers' rule in some cases. It is also possible there is not much difference between the advanced learners and the intermediate learners in the level of pragmatic competence.

As for production, the advanced learners seemed to be more sophisticated. They employed linguistic forms and strategies the intermediate learners did not have. However, in terms of the use of modals, the intermediate learners were often closer to the native speakers. It may be because the advanced learners were on the process of reinterpreting the pragmatic force of modals and exploring the possible uses of them, while the intermediate learners used them as a part of formulae they had learned in class.

It is said that there has not been enough research on the effect of L2 proficiency (Kasper and Blum-Kulka 1993), and it is difficult to give a systematic description of how pragmatic proficiency develops, and how the development of pragmatic competence is related to L2 proficiency. To fill this gap, future studies are awaited.

NOTES

1 This experiment is an adaptation of Hill et al. (1986) with some revision to have it fit for a second language study.

2 This kind of rating involves an ordinal scale, which does not presuppose the equality of intervals between points on the scale. That means, unlike test scores or frequencies, it is not accurate to say, for example, that difference of politeness between the situations rated 1 and 3 is the same as that of 8 and 10. Likewise it is not necessarily true that the situation rated 5 is half as polite as the situation rated 10. For the data involving the ordinal scale, therefore, the mathematical procedures such as adding or subtracting are not appropriate (Butler 1985; 105), thus, means are not accurate indicators of the property of this type of data. However, they are presented here because it provides us with an overall picture of the distribution of the situations on the scale. It should be also remembered that the inter-group comparison of the ratings is not meaningful, because the standard of rating may be different across the groups; that is, the same score may not mean the same degree of politeness.

3 To examine the distribution pattern of the situations on the scale, the sign test was employed, which measures the significance of the difference of two variables when the data use the ordinal scale. It can be used only for the comparison of intra-group variables and cannot be applicable for the inter-group comparison. Here, we can compare, for instance, 'm' and 'o' of English rated by the subjects in JA, but cannot discuss the difference between 'm's of English rated by the JA and AE subjects.

4 As in Experiment 1, the data analyzed here also involve the ordinal data. That means that average is not a very accurate measurement to handle this type of data. Understanding the limitation, average will be presented again in order to show an overall picture of the relationship between the levels of politeness of the nine utterances.

5 Kasper (1989) discusses this issue in terms of verbosity of L2 learners.

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A-BAR DEPENDENCY, WH-SCRAMBLING IN KOREAN, AND REFERENTIAL HIERARCHY

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Abstract: There is an argument-adjunct asymmetry in wh-extractions from weak islands. Some previous approaches to the issue concur that the reason why argument wh-phrases may create long distance A' dependencies across the islands is due to their referential properties, while non-referential adjunct wh-phrases must establish A' dependencies inside some local domain. The notion of referentiality that my analysis crucially employs, unlike the previous approaches, is defined by a set theory. This set theoretic notion of referentiality establishes a referential hierarchy among different wh-phrases, and this hierarchy correlates with the different degrees of strength in A' dependencies that different wh-phrases show in their extractions across weak islands.

My purpose in this paper is to find the precise correlation between A-bar dependency and the notion of referentiality. Since the crucial question in the issue is how to properly define referentiality, the content of the paper will be organized as follows. In Section 1, as an initial attempt, I define referentiality by the lexical content (phi-features: person, number, gender) that only noun phrases inherently carry. The specification of phi-features will render argument wh-phrases referential (long distance A' dependencies) and adjunct wh-phrases non-referential (local A' dependencies). In Section 2, the initial definition of referentiality will be refined as a set theoretic notion of referentiality in order to capture the varying degrees of strength in A' dependencies across wh-islands (weak islands) that different wh-phrases show. I will show that the relative strength of A' dependencies across wh-islands can be predicted by the referential hierarchy: adjunct wh-phrases < bare wh-phrases < which N < partitive wh-phrases. In Section 3, I will consider the strong islands and introduce a new notion: Barrier Defiability.

1. Argument and Adjunct Asymmetry in Weak Islands

Introduction: Rizzi (1990) and Manzini (1992). Weak islands are sensitive to the type of wh-phrases extracted from them. There is a subject-object asymmetry: a subject can not be extracted out of a wh-island whereas an object extraction is possible. There is also a subject-adjunct symmetry because extraction of an adjunct out of a wh-island patterns like subject extraction. Rizzi (1990), however, based upon Italian data, claimed that the subject-adjunct symmetry is only apparent and that subjects actually pattern with objects rather than with adjuncts. This would make the term 'argument-adjunct asymmetry' more appropriate. As for the nonextractibility of subjects out of wh-islands in English-type languages, he derives the wh-trace effects along with that-trace effects from his version of

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ECP reduced down to Proper Head Government requirement (Formal Licensing) according to which Agr features in Comp may serve as a proper head governor. The Identification portion of the conjunctive ECP (antecedent goverment) is regulated by Relativized Minimality. Relativized Minimality constrains the extraction of non-referential phrases like adjuncts. Arguments with referential theta roles are, however, exempt from the effects of Relativized Minimality. Thus Rizzi provides two ways to establish A' dependency: one through the binding relation for arguments with referential theta roles, and the other through the antecedent government for non-referential phrases such as adjuncts. Then the reason for the defiance of relativized minimality effects by arguments is that the operator may be connected to its variable through its referential index by binding, which may hold at a long distance. For adjuncts, the same device is not available and the only way for an operator-variable connection is through antecedent goverment, which accounts for their local nature of A' dependency. This can be illustrated by the following data from Rizzi (1990)[1].

(1) a. ? Which problem do you wonder how PRO to solve t t ?
b. * How do you wonder which problem to solve t t ?

(2) Pseudo-Opacity
a. Combien de livres a-t-il beaucoup consultes t ?
'How many books did he a lot consult ?'
b. * Combien a-t-il beaucoup consulte t de livres ?
'How many did he a lot consult of books ?'

(3) Inner Island
a. Combien de voitures n' a-t-il pas conduit t ?
'How many cars did he not drive ?'
b. * Combien n'a-t-il pas conduit t de voitures ?
'How many did he not drive of cars ?'

Manzini (1992) provides still another way to explain the argument-adjunct asymmetry in weak islands. Her account centers upon the notion of K-government, reflecting the fact that arguments are Case-marked whereas adjuncts are not. She argues for two types of A' dependency, namely Categorial Index dependency and Address-based dependency. Since arguments are K-governed, they get into address-based dependency which allows them to have a long-distance A' dependency across wh-islands (weak islands). The operator-variable connection for non-case marked adjuncts is, however, possible only through Categorial index dependency. Therefore they are allowed to show a local A' dependency only. As for wh-trace and that-trace effects, they are derived by the syntactic proviso that a subject in the relevant position is not K-governed due to the failure of agreement between C and I. Her definition of barrier that prevents adjuncts from establishing a long-distance A' dependency across weak islands was given in relation to the syntactic notion g-marking. Her account predicts the general contrast between adjuncts and arguments.

(4) a. * How do you wonder what to fix t t ?
b. ? What do you wonder how to fix t t ?

(5) Manzini (1992)

a. ? [Quanti pazienti]$_i$ ti chiedi [chi$_j$ t$_j$ visitera t$_i$] -- Italian
How many patients do you wonder who will visit

b. * Quanti$_i$ ti chiedi [chi ne$_k$ visitera [t$_i$ t$_k$]]
How many do you wonder who will visit of them

c. * [How carefully]$_i$ do you wonder who$_j$ t$_j$ worded the letter t$_i$?

(6) Inner Island

a. * Why don't you think Mary finished the job t ?

b. What don't you think Mary finished t ?

(7) Factive Island[2]

a. * Why do you regret OP that Tom fixed the radio t ?

b. Which radio do you regret OP that Tom fixed t ?

The K-government (case marking) she resorts to, however, is purely a syntactic notion with no relation to the distinction between arguments and adjuncts in terms of intrinsic referential properties. Manzini would run into immediate difficulties in dealing with the Korean data (8) where an Accusative case marked frequency adverbial adjunct can not move (Scrambling) out of a wh-island whereas an embedded object can. Here I will assume, along with Mahajan (1990) and Saito (1992), that long-distance scrambling, being subject to the same kind of A' dependency, behaves like A' movement.[3]

(8) a. * myot pin-ul$_i$ Yumi-nun odeso Inho-ka i chak-ul t$_i$ ilkessnunji mulotni ?
how many times-Acc Yumi-Top where Inho-Nom this book-Acc read asked
'How many times did Yumi ask where Inho read this book t ?

b. (?)etten chayk-ul$_i$ Yumi-nun odeso Inho-ka t$_i$ se pin-ul ilkessnunji mulotni ?
which book-Acc Yumi-Top where Inho-Nom three times-Acc read asked
'Which book did Yumi ask where Inho read three times ?'

Kim and Maling (1993) provide evidence that the accusative case on frequency adverbial adjuncts as in (8) may be regarded as a syntactic structural case. They argue that case spreading within VP can assign structural case to both arguments and adjuncts, yielding multiple accusative case constructions, and they show that under passivization adverbial adjuncts manifest the same nominative-accusative case alternation as structural argument NPs.

(9) Kim and Maling (1993)

a. Chelsoo-ka geu chayk-ul se pin-ul / *i ilkessta --Active
Chelsoo-Nom the book-Acc three times-Acc/*Nom read
'Chelsoo read the book three times'

b. Geu chayk-i se pin-i /*ul ilk-hieci-essta --Passive
the book-Nom three times-Nom/*Acc read-passive
'The book was read three times.'

Assuming their argument to be valid, the structurally case marked adverbial adjuncts in (8) may satisfy K-government and enter an address-based dependency. If there is an

AgrP projection in Korean, as Lee (1994a) shows in relation to Chomsky (1992) and Lasnik (1993), and the frequency adverbial adjuncts are base-generated within the embedded VP, then the adjuncts may be c-commanded and case-marked by some functional head like Agr-o in the pre-movement stage. This will make (8a) remain unaccountable in Manzini's analysis.

In summary, the two previous attempts hitherto discussed to provide an account for the contrast between arguments and adjuncts in their extractability out of weak islands may be somewhat inadequate. Rizzi's (1990) referential and non-referential distinction roughly equals argumental and non-argumental (or quasi-argumental) distinction, and he does not provide a clear account of exactly what intrinsic referential properties a phrase must have to be considered referential and how the notion of referentiality must be defined in that respect. Manzini's (1992) K-government must deal with a clear counterexample like (8a). In subsequent sections, unlike Manzini (1992) I will still adhere to the concept referentiality in my attempt to capture the argument-adjunct asymmetry in wh-islands. However, I will take a rather different approach when it comes to defining referentiality. My notion of referentiality will be characterized by the phi-features (person, gender, number) noun phrases inherently carry in order to overcome some of the problems other approaches may not handle directly. Later, to cover an extensive empirical domain, this initial definition will be further refined as the set theoretic notion of referentiality later in the paper.

The Analogy between Long Distance Binding and A' Dependency. In this subsection, I will attempt to answer two questions: What kind of intrinsic properties makes a phrase referential, and why arguments but not adjuncts may be regarded as being referential to manifest the hitherto discussed argument-adjunct asymmetry. In doing so I will resort to a certain similarity between anaphors and wh-phrases with regard to referentiality.

In the relevant literature, there have been various debates over the characteristics of long distance binding phenomena in languages like Korean. In (10), it can be shown that the Korean anaphor *caki* can be long distance bound by its antecedent whereas another anaphor *cakicasin* and the reciprocal expression *selo* must be bound inside a local domain.

(10) a. Chelsoo$_i$-ka Younghee$_j$-ka caki$_{i\,j}$-lul cal tolbonta-ko malhatta
Chelsoo-Nom Younghee-Nom self-Acc well take care of-Comp said
'Chelsoo said that Younghee takes care of self well'

b. Chelsoo$_i$-nun Younghee$_j$-ka cakicasin$_{*i/j}$-lul cal tolbontako malhatta
Chelsoo-Top Younghee-Nom selfself-Acc well take care of said

c. Kim-ci-pupu$_i$-ka Lee-ci-pupu$_j$-ka selo$_{*i/j}$-lul salanghanta-ko malhatta
Kim couple-Nom Lee couple-Nom each other-Acc love-Comp said
'Mr.and Mrs.Kim said that Mr.and Mrs.Lee love each other'

The relevant question here is what properties of such expressions are responsible for allowing *caki* to be long distance bound, but *cakicasin* and *selo* to be only locally bound.[4]

In Lee (1994b), to deal with the question of what properties allow only some anaphors to have long distance binding effects, I took a non-traditional approach by first setting up the relative referentiality between local and long distance anaphors and then establishing a correlation between referentiality and long distance binding. The correlation was established as :

(11) The more referential an anaphor is, the longer the possible distance between the anaphor and its antecedent.

(11) treats referentiality as a relative notion rather than an absolute one. Here clarification is necessary regarding the statement that says that a phrase is referential and that some anaphors are more referential than others.

In Lee (1994b), I proposed that one way to define referentiality may be to rely upon the phi-features (person, gender, number) that a noun phrase contains, and that relative referentiality may be defined as :

(12) Between two expressions A and B, A is regarded as more referential than B iff A has more lexical content (phi-features: person and gender) than B.[5]

From this definition, *caki* would be determined as more referential than *cakicasin* and *selo* since it contains more phi-features than the other two. *caki* is specified as a third person anaphor while *cakicasin* and *selo* do not have phi-features. This can be confirmed through data I provide in Lee (1994b) to show that *caki* can take only a 3rd person singular antecedent as its binder without gender distinction while *cakicasin* and *selo* can take any person and any gender antecedent as their binder because they carry no phi-features that are referentially significant.[6] This being the case, (11) and (12) will correctly predict the long distance dependency of *caki* upon its antecedent and the relatively local dependency of *cakicasin* and *selo* on their antecedents.

Returning to the original question of what properties make the arguments referential but not the adjuncts, it seems that the answer may be readily obtained by finding some similarity between anaphors and wh-traces. First, let us consider how the similarity might be derived. Bouchard (1983), in determining the content of empty categories, noted on the basis of Chomsky (1981) that wh-traces can have F-features (phi-features) since they may morphologically agree with other sentential elements. He stated that "these features are said to be left behind by move *a*"(Bouchard 1983, 14). This claim makes sense when considering sentences like (13).

(13) a. Which person do you think $_{cp}$[t'$_{ip}$[t (3rd person singular) bothers John]]?
b. What do you think $_{cp}$[t'$_{ip}$[t (3rd person singular) is the problem]]?

Following Bouchard's claim, in (13) one way to realize agreement morphology on the embedded verbs may be to assume that phi-features which the wh-phrases carry are either left behind or transmitted to the base-generated positions occupied by traces. Then

a wh-trace carrying phi-features as in (13) will pattern with the long distance anaphor *caki* (3rd person singular) in that it may be long distance bound by its actual antecedent across its potential A-bar antecedent (wh-island or weak island insensitivity) as can be seen in (4b), (5a), (6b), and (7b). However, note that the wh-phrases involved in (13), (4b), (5a), (6b), and (7b) are argument phrases. The adjunct wh-phrases in (14) do not inherently carry phi-features, so when they move, there are no phi-features to be left behind or transmitted. Consequently adjunct wh-traces do not contain phi-features.

(14) Why/ How do you think that John solved that problem t (no phi-features) ?

Then adjunct wh-traces with no phi-features would parallel the local anaphors *cakicasin* and *selo*, which are also lacking in phi-features, in that adjunct wh-traces could be only locally bound by their actual antecedents. Hence weak island sensitivity as shown in (4a), (5b-c), (6a), and (7a).[7] This will make the argument-adjunct asymmetry in weak islands prone to the same type of analysis, namely, (15).

(15) Between two wh-phrases A and B, A is regarded as more referential than B iff A has more lexical content (phi-features) than B. The more referential a wh-phrase is, the longer the A-bar dependency.

According to (15), argument wh-phrases carrying phi-features would be more referential than adjunct wh-phases containing no phi-features. Perhaps the referential degree of adjunct wh-phrases may be zero due to the complete lack of these features. The argument-adjunct asymmetry and its comparability to the long-distance vs. local binding of anaphors can be seen in Korean data (16) and (17) in comparison with (10).

(16) Wh-scrambling in Korean[8]

a. * eottuge$_i$ John-un eodeso Mary-ga t_i i cha-lul gochi-essnunji ani ?
how John-Top where Mary-Nom this car-Acc fix -Past know
'How$_i$ does John know where Mary fixed this car t_i ?'

b.(?) eotten cha$_i$-lul John-nun eodeso Mary-ga t_i gochi-essnunji ani?
which car-Acc John-Top where Mary-Nom fix-Past know
'Which car$_i$ does John know where Mary fixed t_i ?'

(17) a. * eottuge$_i$/*whe$_i$ John-un etten ahiy-ege Sue-ga t_i sip bull-lul juettnunji ani ?
how/why John-Top which kid-Dat Sue-Nom ten dollars-Acc gave know
'How$_i$/Why$_i$ does John know to which kid Sue gave ten dollars t_i ?'

b.(?) eotten ahiy$_i$-ege John-un eolma-lul Sue-ga t_i juettnunji ani ?
which kid-Dat John-Top how much money Sue-ga gave know
'Which kid$_i$ does John know how much money Sue gave t_i ?'

As for the analogy between anaphors and wh-traces, other linguists also point toward the same direction. Manzini (1992) collapses the two into one supercategory "dependent elements". Aoun (1985) suggests that wh-traces are A-bar anaphors in addition to being R-expressions. The traditional assumption that wh-phrases are just R-expressions may be highly doubtful. The clear distributional difference is that wh-traces, unlike overt R-

expressions, are always bound sentence internally by their antecedents, or that overt R-expressions, unlike wh-traces, can never have c-commanding antecedents in either A or A-bar position. In view of Manzini (1992) and Aoun (1985), the analogy I drew between anaphors and wh-traces on the basis of referentiality defined upon phi-features is far from being farfetched. The two belong to the same category in that both of them should be bound sentence internally by their antecedents.

In summary, this section defined the notion of referentiality in terms of lexical content (phi-features), and I showed how the definition correlates with long-distance vs. local binding of anaphors. Ultimately, the analogy between (long) distance binding and A-bar dependency was brought about by showing that with the given definition of referentiality, the analysis for long-distance and local anaphors may be carried over to the argument (long distance A' dependency)-adjunct (local A' dependency) asymmetry in weak islands. Now the question with which I began this section may be answered: It is the property of phi-features XP carries that makes arguments referential but not adjuncts.

So far I have used the term "long vs. local" in a vague sense. Thus it may be necessary to clarify how the terms can be syntactically defined. Therefore, I define local domain as in (18):

(18) A local domain for a dependent element D (wh-trace/anaphor) is an immediate maximal projection that contains D and its potential antecedent P c-commanding D. If D is a wh-trace, then P is XP in an A-bar position. If D is an anaphor, then P is XP in an A-position.

(19) Between two dependent elements A and B of the same type, A is regarded more referential than B iff A has more lexical content (phi-features) than B. The more referential a dependent element is, the longer the dependency between the element and its antecedent.

a. An adjunct wh-trace should be bound in its local domain (local dependency) since adjuncts do not have phi-features. This is analogous to the local anaphors (*cakicasin* and *selo*).

b. An argument wh-trace may be long distance bound outside its local domain (long distance dependency) since arguments may have phi-features. This is analogous to the long distance anaphor (*caki*).

X^0-Chains. V-movement is another case which shows a strict local dependency. This particular local X^0-dependency can be explained by Travis'(1984) Head Movement Constraint. The constraint is exemplified in (20).

(20) a. John will be reading the book.
b. Will$_i$ John t_i be reading the book ?
c. * Be$_i$ John will t_i reading the book ?

Again, the relevant issue here is why in (20c) a long distance X^0-dependency between the trace and its antecedent across the intervening potential antecedent is not allowed. For

Rizzi (1990), it would be a violation of Relativized Minimality, and for Manzini (1992), the heads can not enter an address-based dependency and therefore must satisfy antecedent government since they are not case-marked. The line of approach I am pursuing will result in the same degree of explanatory adequacy. The related heads in V-movement do not carry any phi-features, and as such must be treated as being non-referential along with adjunct wh-phrases. This would immediately account for the ban on the long distance X°-dependency in (20c) while correctly predicting only the local X°-dependency shown in (20b).

Cliticization in Romance languages may be another instance of X°-Chain. Following Kayne's (1989) argument that clitic movement is head movement, one must deal with the question as to why long distance cliticization may be allowed in some languages. Kayne provides the following data showing long distance cliticization.[9]

(21) Kayne (1989)

a. Gianni li vuole vedere -Italian
John them-wants to-see

b. Jean la fait manger par/ a Paul -French Causative Construction
John it-makes eat by/ to Paul

c. Gianni ve li vuole mosstrare -Italian
John you$_{Dat}$-them-wants to-show

d. Non ti saprei che dire -cliticization out of wh-island in Italian
(I) Neg you$_{Dat}$-would-know what to-say

Sportiche (1992) also deals with cases of long distance cliticization.[10]

(22) Sportiche (1992)

a. Jean la veut manger -middle French
Jean it wants to eat

b. Pierre le voulait lire -middle French
Pierre it wanted to read

c. lo quiero ver -Spanish
(I)him-want to see

d. Mario, non lo$_j$ saprei a chi affidare t_j -Italian
Mario, I would not know to whom to entrust him

Manzini (1992), who also assumed cliticization to be N°-movement, argued that cliticization should be strictly local because a clitic can not be K-governed (case-marked), being a head rather than a phrasal maximal projection. Then clitics would not get into an address based dependency with their traces even though they intrinsically carry overt case feature.[11] This conclusion of hers was based upon pieces of isolated French data. However, her approach and Rizzi's Relativized Minimality may not be adequate to capture the possible long distance X°-dependency shown in (21) and (22). The question of what can potentially make long distance head dependency possible in this case, unlike Verb-movement in (20), may be readily answered: clitics are referential like argument

wh-phrases because they contain phi-features, which are left behind or transmitted to their traces in cliticization.[12] Therefore, they may show long distance X°-dependency with their traces.

A-Movement. Having accounted for A' dependency and X°-dependency in the manner described above, what remains mysterious is the fact that A-movement shows a strict local dependency even though a moved NP may be referential and fully specified in phi-features.

(23) a. * He_i seems that it was criticized t_i in public.
b. It seems that he_i was criticized t_i in public.
c. * She_i seems that it is likely [t_i to become a good lawyer]
d. She_i seems [t_i to be likely [t_i to become a good lawyer]]

This problem that the strict local nature of A-movement poses should be properly dealt with for any theory which attempts to explain local vs. long distance dependency by having recourse to the notion of referentiality. Therefore (23a and c) are problematic also for Rizzi (1990) and Cinque (1990), even though they do not pose any problems for Manzini (1992) whose system relies not upon referentiality but upon K-government (case-marking).[13] For Rizzi, (23a and c) are independently ruled out by the Theta Criterion, which is defined in terms of chains of antecedent goverment. Cinque (1990) takes an approach somewhat similar to Rizzi's, and argues that for a trace to enter a binding chain for long distance dependency rather than an antecedent government chain, it must be intrinsically referential. However, an A-trace may not be intrinsically referential because it is not referentially independent, but constitutes only one component of a whole referential entity, namely, the A-chain. Therefore, according to Cinque an A-chain must satisfy antecedent government.

Though intuitively insightful, these attempts by both Rizzi and Cinque to explain the local nature of NP-movement are conceptually vague. Thus for A-movement in (23), I will attempt to account for the strict local dependency through a version of the Visibility Condition (Chomsky 1986) that a noun phrase must satisfy: a noun phrase must have Case to be visible for theta role assignment.[14] Now suppose that NP must have Case since Case functions to identify how the NP is referentially interpreted in the theta structure. As I mentioned above, if it is the case that an XP is referentially interpreted depending upon the phi-features it carries, then it can be said that Case functions to guarantee the referential interpretation of an XP in the relevant theta structure through properly licensing the phi-features the XP carries. This would entail that for an XP to be referential, the phi-features it carries must be properly licensed and made visible by an additional feature, namely, Case feature. Such being the case, the relevant NPs in (23), when movement takes place, carry no Case feature since they are Raising or Passive predicates. Thus the phi-features they carry can not be properly licenced due to the lack of Case feature, and remain invisible. The unlicensed (invisible) phi-features the NPs carry will fail to yield a referential interpretation, hence the strict local nature of A-movement in (23).[15]

In summary, I have hitherto discussed four different types of dependencies: anaphor binding, A' dependency, X^0-dependency, and A-movement. For each one of these four different types of dependencies, what may count as a potential antecendent (or subject) creating an opaque domain relevant for one dependency should be distinct for all four of them. This means that different local domains should be defined for each of the four dependencies. Whether the relevant dependency can be established across the local domain (long distance dependency) or only inside the local domain (local dependency) depends upon the concept referentiality defined upon lexical content (phi-features). In the same spirit as Progovac's (1992) Relativized Subject and Rizzi's Relativized Minimality, I define Relativized Local Domain in (24).[16]

(24) Relativized Local Domain
A local domain for a dependent element D (non-pronominal empty category or anaphor) is an immediate maximal projection that contains D and its potential antecedent P c-commanding D.
If D is an X^0-trace, then P is a head
If D is an A-trace (XP), then P is XP in an A-position
If D is a wh-trace (XP), then P is XP in an A-bar position
If D is an anaphor in A-position, then P is XP in an A-position

Having provided (24), now the correlation between referentiality and long vs. local dependency given in (19) may be generalized to all four different types of dependencies, namely, (25).

(25) Between two X(P)s A and B that belong to the same type of dependency , A is regarded more referential than B iff A has visible lexical content (phi-features) whereas B does not. The more referential an X(P) is, the longer the dependency between the dependent element and its antecedent. The lexical content (phi-features) that an X(P) carries is visible iff the features are properly licensed by the Case feature of the X(P).

2. Refinement: Referentiality and A-Bar Dependency

Introduction. Even though what I provide in (18) and (19) can capture the general argument-adjunct asymmetry in A'-dependency across wh-islands, the system itself may not be rich enough to adequately account for the multiple contrasts that can be shown in the Korean data (26) and (27).[17]

(26) a. * ettuge$_i$ neo-nun ettun cha-lul nae-ka t_i gochi-essnunji algosipni ?
how you-Top which car-Acc I-Nom fixed want to know
'How$_i$ do you wonder which car I fixed t_i ?'
b. ?? muett$_i$-lul neo-nun ettuge nae-ka t_i gochi-essnunji algosipni ?
what-Acc you-Top how I-Nom fixed want to know
'What$_i$ do you wonder how I fixed t_i ?'

c. ? ettun cha_i-lul neo-nun ettuge nae-ka t_i gochi-essnunji algosipni ?
which car-Acc you-Top how I-Nom fixed want to know
'Which car_i do you wonder how I fixed t_i ?'

d. i-jung-e ettun cha_i-lul neo-nun ettuge nae-ka t_i gochi-essnunji algosipni ?
out of these which car-Acc you-Top how I-Nom fixed want to know
'Which of these $cars_i$ do you wonder how I fixed t_i ?'

(27) a. * $ettuge_i$ neo-nun ettun yoja-lul nae-ka t_i mana-essnunji kungumhani ?
how you-Top which woman-Acc I-Nom met wonder
'How$_i$ do you wonder which woman I met t_i ?'

b. ?? $nwuku_i$-lul neo-nun ettuge nae-ka t_i mana-essnunji kungumhani ?
who-Acc you-Top how I-Nom met wonder
'Who$_i$ do you wonder how I met t_i ?'

c. ? ettun $yoja_i$-lul neo-nun ettuge nae-ka t_i mana-essnunji kungumhani ?
which woman-Acc I-Top how I-Nom met wonder
'Which $woman_i$ do you wonder how I met t_i ?'

d. i-jung-e ettun $yoja_i$-lul neo-nun ettuge nae-ka t_i mana-essnunji kungumhani ?
out of these which woman-Acc you-Top how I-Nom met wonder
'Which of these $women_i$ do you wonder how I met t_i ?'

The different degrees of acceptability observed in the data (26) and (27) may not be captured by the relative referentiality defined by the phi-features as in (19) because there may be no difference in terms of the phi-features, especially between the two wh-phrases in (27c) and (27d), namely, the *which N* type and the partitive wh-phrases. What (26) and (27) show is that even though there clearly exists a general argument-adjunct asymmetry in A' dependency across wh-islands, not all argument wh-phrases can establish long distance A' dependency in equal strength across the islands. This being the case then, both Rizzi (1990) and Manzini (1992) would also fall short of adequately explaining the gradual improvement effects of (a) through (d) in (26) and (27). The view that there is an additional requirement on argument wh-phrases for long distance A' dependency is advocated by Cinque (1990).

In this section, first I will briefly examine the competing approaches to the issue of what classes of elements may undergo long wh-movement: Cinque (1990) argues that D-linking in the sense of Pesetskey (1987) is the proper notion. These approaches will be reviewed from empirical standpoints in view of the data (26) and (27). Later I will conclude that the sort of data in (26) and (27) can be adequately captured by refining the notion of referentiality given in (19) as some set theoretic notion of referentiality. Finally, it will be shown how this refined notion of referentiality may correctly correlate with different degrees of A-bar dependency.

Problems With Manzini (1992) and Rizzi (1990). As mentioned above, Manzini's (1992) system may not be sophisticated enough to capture the contrasts in (26) and (27) since all argument wh-phrases are uniformly case-marked (k-governed). Therefore the varying degrees of wellformedness observed among different argument wh-phrases in the above data remain unexplained. Another problem is that in (26d) and (27d) the embedded

indirect questions are tensed clauses. Then according to Manzini's system, the intervening tensed T° head will be made visible through verb incorporation and will be independently addressed. As a result, an embedded T° head that carries an address of its own will block the address-based dependency between the extracted wh-phrase and its trace, making the categorial index dependency (local A' dependency) the only option. This would incorrectly predict the long distance A' dependency in the data (26d) and (27d) to be ruled out. However, (26c and d) and (27c and d) clearly show that the tense island effects may be neutralized contra Manzini (1992).[18]

Rizzi's (1990) notion of referential theta roles may not be sufficient to predict even the simple contrast in (28), let alone the rather complex contrasts in (26) and (27), since the two argument wh-phrases in (28) would be assigned the same referential theta roles and thus both of them would be equally referential according to his analysis.[19]

(28) a. ?? muett$_i$-lul John-un ettuge t_i pulji kungrihagoiss-ni ?
what-Acc John-Top how to solve wonder
'What is John wondering how to solve ?'
b. (?) eottun munje$_i$-lul John-un ettuge t_i pulji kungrihagoiss-ni ?
which problem-Acc John-Top how to solve wonder
'Which problem is John wondering how to solve ?'

Cinque (1990). The sort of contrast in (28) is in part what motivated Cinque (1990) to adopt Pesetsky's (1987) notion of D-linking and argue that only D-linked wh-phrases are referential and may have a long distance binding relation with their traces, allowing them to defy wh-islands. However, only successive cyclic derivation would be available for non-D-linked non-referential wh-phases, which subjects them to wh-island effects (weak island). For Cinque, being D-linked is one way for a phrase to be referential, and for a wh-phrase to have a long distance A' dependency, it must be D-linked to receive referential properties, in addition to being assigned an argumental (referential) theta role in an A-position.

The notion D-linking, however, is a binary concept: a phrase is D-linked or non-D-linked, and there is no such relative notion as varying degrees of D-linkedness. Then, the dichotomous notion of referentiality defined upon the binary concept D-linking may not adequately handle different degrees of acceptability which can be noticed in (29) as well as in (26) and (27).[20, 21]

(29) a. ** How$_i$ are you wondering which problem to tackle t_i ?
b. * What the hell$_i$ are you wondering how to tackle t_i ?
c. ?? What$_i$ are you wondering how to tackle t_i ?
d. (?)Which problem$_i$ are you wondering how to tackle t_i ?
e. Which of these problems$_i$ are you wondering how to tackle t_i ?
(30) yoja cingu$_i$-lul na-nun eottuge John-i t_i saguiettnunji muluhboatta.[22, 23]
girl friend-Acc I-Top how John-Nom made asked
'I asked how John made friends with a girl (non-specific)'

The above data from (a) through (e) in (29) show some gradual ameliorating effects; it is not easy to determine within the binary notion of D-linking what exactly triggers the multi-way contrasts. In view of (29), it seems that an alternative notion of referentiality should be considered along with other problems to be dealt with within the notion of D-linking.

Set Theoretic Notion of Referentiality. In order to adequately capture the multi-way contrasts observed in (26), (27), and (29), referentiality should not be a binary notion which provides only the dichotomous distinction such as D-linked vs. non-D-linked or specific vs. non-specific. Instead, the varying degrees of acceptability in the above data should be captured by a definition of referentiality which allows different degrees of referentiality. This implies that referentiality may be a gradational or hierarchical relation among different elements. Therefore the key to account for the gradual multiple contrasts noticed among different wh-phrases extracted out of wh-islands may depend upon whether one can properly define such a relative hierarchical notion of referentiality. This is precisely what I will attempt to do in this subsection.

Let's first concentrate upon wh-phrases in the following additional data showing the same type of gradational effects.

(31) a. * Who are you wondering whether Joe visited t on his vacation ?
b.?(?)Which man are you wondering whether Joe visited t on his vacation ?
c. Which of these men are you wondering whether Joe visited on his vacation?
(32) a. * What do you wonder how I repaired t ?
b.?(?)Which car do you wonder how I repaired t ?
c. Which of these cars do you wonder how I repaired t ?

First of all, let's ask what the difference between *what* and *which car* in (32) may be. According to Pesetsky (1987), the former may be non-D-linked whereas the latter is D-linked. He argues that the D-linked and non-D-linked distinction may correlate with Heim's "familiar" vs. "novel" distinction. For D-linked wh-phrases, since the relevant answer comes from a set of previously established discourse entities, they may introduce familiar discourse entities, whereas this may not be the case for the non-D-linked "novel" bare wh-phrases. Following the evidence Pesetsky provides to differentiate bare wh-phrases from *which N* type phrases, which we may assume along with Cinque (1990) is responsible for the kind of contrasts shown between (32a) and (32b), the next question is: what is the crucial difference between *which N* type and partitive type *which of these cars* in (32) that causes the contrast between (32b) and (32c)? It is not clear how this contrast can be explained under the notion of D-linking because both *which N* type and partitive type wh-phrases would be D-linked according to Pesetsky. Nevertheless, there should be some intrinsic difference between the two which feeds the contrast.[24]

Some evidence for the assumption that *which N* type and partitive type wh-phrases should be treated differently may come from the following discourse structures in Korean.

(33) Speaker A: onul Russ Darrow-ey gottaowa-essoyo.
today Russ Darrow-to have been
'I have been to Russ Darrow today.'
gogi-eso nayil cha handae-lul sal-goeyo.
there tomorrow car one-Acc buy will
'I will buy a car there tomorrow.'

Speaker B:

appropriate question 1- * muott-lul nayil sal-goeyo ?
what-Acc tomorrow buy will
'What will you buy tomorrow ?'

appropriate question 2- ettun cha-lul nayil sal-goeyo ?
which car-Acc tomorrow buy will
'Which car will you buy tomorrow ?'

appropriate question 3- * geu jungeso ettun cha-lul nayil sal-goeyo ?
out of the which car-Acc tomorrow buy will
'Which of the cars will you buy tomorrow ?'

(34) Speaker A: onul Russ Darrow-ey gottaowa-essoyo.
today Russ Darrow-to have been
'I have been to Russ Darrow today.'
gogi-eso nayil cha handae-lul sal-goeyo.
there tomorrow car one-Acc buy will
'I will buy a car there tomorrow.'
maeum-ey deunun ssan cha-ka nehdae iss-esseyo.
I like inexpensive car-Nom four were
'There were four inexpensive cars that I saw and liked.'
Nissan Stanza, Toyota Corrolla, Honda Civic, Ford Taurus ieyo.
'Nissan Stanza, Toyota Corrolla, Honda Civic, and Ford Taurus.'

Speaker B:

appropriate question 1- * muott-lul nayil sal-goeyo ?
what-Acc tomorrow buy will
'What will you buy tomorrow ?'

appropriate question 2-??/*ettun cha-lul nayil sal-goeyo ?
which car-Acc tomorrow buy will
'Which car will you buy tomorrow ?'

appropriate question 3- geu jungeso ettun cha-lul nayil sal-goeyo ?
out of the which car-Acc tomorrow buy will
'Which of the cars will you buy tomorrow ?'

In (33), after the utterance of speaker A, question 1 by speaker B sounds very unnatural because it seems out of context with the related discourse. Question 3 sounds odd because a specific set of cars was not clearly established in the previous discouse utterance of speaker A. This shows that the answer for Korean partitive wh-phrases should always come from a set of entities clearly established in the previous discourse (compare this

with the naturalness of question 3 in (34)). Question 2 may be the only wellformed utterance in the discourse context of (33). In (34), speaker B's question 1 sounds very unnatural for the same reason, namely, that the question sounds completely unconnected to speaker A's utterance. Question 2 seems odd, too, because the question is not really asking for a choice among the four cars specified by speaker A, even though it is strongly implied in (34) that the person is going to buy one of the four specified cars tomorrow at Russ Darrow. Rather question 2 seems to be asking for a choice among any of those cars at Russ Darrow or some other place. This shows that the answer for *which N* type wh-phrases may come from a more broadly defined contextually relevant set than that for partitive type wh-phrases. Using the partitive wh-phrase in question 3 of (34) is very natural in the given context because there is a clear establishment of a specific set of cars in speaker A's utterance.

In view of (33) and (34), the difference between *which N* and partitive wh-phrases can be that the denotation of the latter may come from a more narrowly defined set than the former.[25] Therefore we may claim that partitivity in wh-phrases can function to carve out a smaller subset in comparison with non-partitive wh-phrases. As for bare wh-phrases like *who* and *what* in (31) and (32), it may not be that they are non-referential. Instead, it may just be that since the membership of the set which a bare wh-phrase quantifies over is unknown, the denotation of the answer for bare wh-phrases *who* or *what* may come from a much more broadly defined set (perhaps, the set of humans and the set of non-human entities, respectively) than *which N* and partitive wh-phrases.

Thus, the relative hierarchical notion of referentiality for different wh-phrases such as those involved in (31) and (32) may be defined as a set theoretic notion of referentiality as in (35). From this, the correlation of referentiality with different degrees of A-bar dependency across weak islands hitherto discussed in this section may be given as an empirical dictum (36).

Referentiality and A-bar Dependency:

(35) Between two wh-phrases A and B, A is regarded more referential than B iff the denotation of A comes from a more narrowly defined set than B.

(36) The more referential a wh-phrase is, the longer and stronger the A-bar dependency.[26]

(35) and (36) imply that in terms of extraction out of wh-islands, an adjunct wh-phrase (*how*, *why*, etc.,) may most strictly obey local domain, hence showing the weakest and shortest A-bar dependency, whereas a partitive wh-phrase may most freely establish A-bar dependency beyond its local domain, hence showing the longest and strongest A-bar dependency.[27] A relative referential hierarchy among different wh-phrases may be illustrated as:

(37) adjunct wh-phrases < bare wh-phrases < which N type < partitive wh-phrases

The hierarchy in (37) would account for the multiple contrasts noted among different wh-phrases extracted out of wh-islands.

3. Strong Islands and Barrier Defiability

Introduction. Manzini (1992) shows that in general, case-marked argument wh-phrases can escape out of weak islands (Wh-island, Inner island, Pseudo-opacity island, and Factive island) whereas caseless adjunct wh-phrases can not be extracted out of them. This may be one way to derive the general argument-adjunct asymmetry in weak islands, as I reviewed in Sections 1 and 2 while noting empirical problems her theory has to deal with. As far as the strong islands (Subject island, Adjunct island, Relative clause island, and complex NP island) are concerned, both Manzini's system and Cinque's (1990) approach make sure that neither argument (wh-)phrases nor adjunct (wh-)phrases may be extracted out of them. This argument-adjunct symmetry in strong islands may be in part what motivated Cinque to propose the elimination of Chomsky's (1986) Inheritance Barrier. He noted some redunduncy in Chomsky's Barriers framework and argued for the elimination of the notion of Minimality Barrier and Barrier by Inheritance.

Cinque's analysis shows that this redundancy in Chomsky's system can be eliminated by postulating two distinct notions of barrier for the government chain (adjunct extraction) and the binding chain (argument extraction). His definition of a weak island as an XP that is theta-marked, but not L-marked, motivated the definition of barrier for government as an XP that is not L-marked by a [+V] category. His definition of a strong island as an XP that is neither theta-marked nor L-marked led to the definition of barrier for binding as an XP that is not theta-marked by a [+V] category.[28] According to Cinque, a government chain is for non-referential phrases whereas a binding chain is for referential phrases (D-linked). Therefore, the government barrier constrains only the movement of non-referential adjunct (wh-)phrases while the binding barrier constrains only the movement of referential argument (wh-)phrases. Suppose that this is not the case and that the binding barrier may constrain both movements. This would be to assume that the term 'binding' is not a notion reserved exclusively for referential argument phrases, but it is rather a cover term for both types of A-bar dependency: long distance A-bar binding (referential argument wh-phrases) and local distance A-bar binding (non-referential adjunct wh-phrases). Then we may be able to eliminate the notion of government barrier, because extraction of adjunct wh-phrases out of strong islands would now be constrained by the binding barrier and their extraction out of weak islands (wh-island, Inner island, Pseudo opacity island, and Factive island) may be independently ruled out by the referential hierarchy established in (37) through (19), (25), (35), and (36) together with the relevant local domain defined in (24).[29, 30] Such being the case then, the notion weak island may simply remain as a taxonomic artifact without any theoretical significance because the term 'local domain for A' dependency' defined in (24) refers to the weak island itself (wh-island, Inner island, Pseudo opacity island, and Factive island) containing A-bar trace (dependent element D) and its potential antecedent P.[31] Thus the term local domain for A' dependency and the notion weak island denote the same entity. In Rizzi's account, weak islands containing a potential subject (A' antecedent) for A'

trace just constitute an opaque domain for adjunct wh-traces, though not for argumental wh-phrases.

With the elimination of the government barrier, together with all of its residual effects, and with the notion of weak island demoted simply to the descriptive term 'local domain for A' dependency', what is left is only the binding barrier (strong islands), which will render the system maximally simple. As for strong islands (Subject island, Adjunct island, Complex NP island, and Relative clause island), since there may be no intervening potential A' antecedent with blocking effects for A' trace inside them, the local domain for A' dependency is predicted to be extended to the matrix clauses according to the definition of local domain for A' dependency given in (24).[32] This will incorrectly predict that all A' dependencies will be possible across strong islands. Therefore it may be necessary to independently define strong islands (binding barrier in Cinque's term) which would constrain A' dependency across them. Here I will simply adopt Cinque's definition of barrier for binding to define strong islands. After the possible elimination of government barrier, this will be the only notion of barrier necessary for the A' dependency system for the reason mentioned above.

(38) XP is a barrier(strong island) if it is not directly theta-marked by a +V category.

In this section, we will see that even this barrier may be neutralized if an extracted element is relatively high on the referential hierarchy established in (37). So, for some highly referential A' elements, A' dependency can be established even across the barrier defined in (38). Later this phenomenon will be referred to as Barrier Defiability.

Complex NP Island. Manzini (1992) discusses data like (39) as an example of Complex NP islands where an address-based dependency can not be established between extracted wh-phrases and their traces due to intervening case-marked noun phrases which can carry independent addresses of their own, hence the unacceptability of (39).

(39) [(33), Ch 1 in Manzini (1992)]
* Who$_i$ did you see [many attempts $_{cp}$[to portray t_i]] ?

In (39), the address based A' dependency is blocked by the independently addressed intervening NP (*many attempts*). The embedded CP in (39) will be a barrier according to Cinque's definition (38) for not being theta-marked by a [+V] element. Thus both Manzini and Cinque have correct results for (39). However, if the extracted wh-phrase becomes more referential according to (35), then the A' dependency across complex NP islands tends to get stronger and the barrier tends to be neutralized contra Manzini and Cinque, as can be exemplified by the following data with much improvement in acceptability.

(40) ?(?)Which old soldier/Which old lady did you see many attempts to portray t ?[33]

Roughly the same pattern can be found in (41) and (42).

(41) a. * Who did you notice many attempts to incriminate t ?
b.?(?)Which suspect/Which man did you notice many attempts to incriminate t ?
(42) a. * What did you see many attempts to fix t ?
b.?(?)Which car did you see many attempts to fix t ?

Furthermore, varying degrees of acceptability representing the referential hierarchy in (37) can be detected in the following data.

(43) a. * How did John announce a plan to read the book t ?[34]
b.*/??What did John announce a plan to read t ?
c. (?) Which book did John announce a plan to read t ?
d. Which of these books did John announce a plan to read t ?
(44) a. * How did John announce a plan to fix the car t ?
b.*/??What did John announce a plan to fix t ?
c. (?) Which car did John announce a plan to fix t ?
d. Which of these cars did John announce a plan to fix t ?[35]

In (43) and (44), as we move from (a) to (d) examples, we see gradual amelioration effects. This shows that the barrier formed by the intervening noun phrases can significantly be weakened and that the relative degrees of strength in barrier neutralization (debarrierization) may be reflected in the referential hierarchy.

Barrier Defiability. Other strong islands which block A' dependency are the Subject island, the Adjunct island, and the Relative clause island. These islands will form barriers according to definition (38); they are not directly theta-marked by a verb. All previous approaches on wh-movement such as Chomsky (1986), Rizzi (1990), Cinque (1990), and Manzini (1992) predict that all formations of wh-chain across strong islands will be uniformly blocked and thus there may be no distinction between argument wh-phrases and adjunct wh-phrases in this regard (the argument-adjunct symmetry in strong islands).[36] However, as can be seen in (45), there may be an argument-adjunct asymmetry even in strong islands.

(45) a. ?? Which fairy tale did you feel good after reading t ?
b. ** How did you feel good after reading the fairy tale t ?[37]

Clearly, there is a contrast between (a) and (b) of (45) in terms of acceptability. More consideration may be necessary to determine whether or not a strong island forms an absolute barrier without any possibility of debarrierization (weakening).

Manzini brings up one significant fact about strong island violation by arguments in comparison with antecedent government violation by adjuncts, and states that "a pure Subjacency violation is better than a pure antecedent government violation"(Manzini, 78). This can be illustrated by the following data from Manzini.

(46) a. * What$_i$ does [repairing t_i] bother you ? -- interpretable

b. * How$_i$ do you wonder [what$_j$ to repair t_j t_i] ? -- not interpretable
[(4) and (18) of Ch 2 in Manzini]

Manzini noted that there is an important difference between (46a) and (46b) in terms of interpretability. The latter, a blockage in categorial index dependency (a pure antecedent government violation), makes the structure completely uninterpretable, whereas the former, a blockage in address-based dependency (a pure Subjacency violation), may still have some interpretability through the identification process of addressed positions.

This observation may naturally feed the assumption that in wh-extractions out of strong islands, the degree of acceptability or interpretability may increase or decrease depending upon what type of wh-phrases are extracted. This assumption is born out by the following Korean data.

(47) Complex NP island
a. * ettuge$_i$ Mary-nun [sunsang-i gongongyoni t_i gu yohaksang-lul binanhaessta
how Mary-Top teacher-Nom in public the schoolgirl-Acc criticized
-nun] sasil-lul algoissni ?
fact-Acc know
'How does Mary know the fact that the teacher criticized the schoolgirl t in public ?'
b. ?? nwuku$_i$-lul Mary-nun [sunsang-i gongongyoni t_i binanhaessta-nun] sasil-
who-Acc Mary-Top teacher-Nom in public criticized fact
lul algoissni ?
Acc know
'Who does Mary know the fact that the teacher criticized t in public ?'
c. (?)ettun yohaksang$_i$-lul Mary-nun [sunsang-i gongongyoni t_i binanhaessta
which schoolgirl-Acc Mary-Top teacher-Nom in public criticized
nun] sasil-lul algoissni ?
fact-Acc know
'Which schoolgirl does Mary know the fact that the teacher criticized t in
in public ?'

(48) Subject island
a. * ettuge$_i$ Tom-un [Sue-ka gyosil-eso t_i John-eke sonsugun-lul juessta-
how Tom-Top Sue-Nom in the classroom John-Dat handkerchief-Acc gave
nunkes]-i isanghatako sangakhani ?
-Nom strange be think
'How does Tom think that [the fact that Sue gave a handkerchief to John t in the classroom] is strange ?'
b. ?? nwuku$_i$-eke Tom-un [Sue-ka gyosil-eso t_i sonsugun-lul juessta-
who-Dat Tom-Top Sue-Nom in the classroom handkerchief-Acc gave
nunkes]-i isanghatako sangakhani ?
-Nom strange be think
'To whom does Tom think that [the fact that Sue gave a handkerchief t in the classroom] is strange ?'

c. (?) ettun namhaksang$_i$-eke Tom-un [Sue-ka gyosil-eso t_i sonsugun-lul
which schoolboy-Dat Tom-Top Sue-Nom in the classroom handkerchief
ju-essta-nunkes]-i isanghatako sangakhani ?
gave -Nom strange be think
'To which schoolboy does Tom think that [the fact that Sue gave a handkerchief t in the classroom] is strange ?'

Furthermore, different degrees of interpretability, which reflect the referential hierarchy in (37), may be found in the following English data.

(49) Subject island
a. How does repairing the car t bother you ?
b. What the hell does repairing t bother you ?
c. What does repairing t bother you ?
d. Which car / Which of these cars does repairing t bother you ?

(50) Adjunct island
a. How was Mary so happy because Mickey read the storybook t ?
b. What the hell was Mary so happy because Mickey read t ?
c. What was Mary so happy because Mickey read t ?
d. Which storybook / Which of these storybooks was Mary so happy because Mickey read t ?

Many native speakers agree that in the above data, the degree of interpretability gradually increases from the (a) to (d) examples. The same gradational effects in acceptability can be found in some additional Korean data as well, (51) and (52), which show the same kind of gradually increasing ameliorations from the (a) to (d) examples.

(51) Adjunct island
a. ettuge$_i$ sunsang-uy gibun-i [Tom-i t_i gu chak-ul ilkessgitamune] coessni ?
how teacher-Gen feeling-Nom [Tom-Nom the book-Acc read because] good
'How did the teacher feel good because Tom read the book t ?'
b. (dodeche) muott$_i$-lul sunsang-uy gibun-i [Tom-i t_i ilkessgitamune] coessni?
the hell what-Acc teacher-Gen feeling-Nom[Tom-Nom read because] good
'What (the hell) did the teacher feel good because Tom read t ?'
c. ettun chak$_i$-lul sunsang-uy gibun-i [Tom-i t_i ilkessgitamune] coessni ?
which book-Acc teacher-Gen feeling-Nom [Tom-Nom read because] good
'Which book did the teacher feel good because Tom read t ?'
d. i-junge ettun chak$_i$-lul sunsang-uy gibun-i [Tom-i t_i lkessgitamune]coessni?
of these which book-Acc teacher-Gen feeling-Nom [Tom read because]good
'Which of these books did the teacher feel good because Tom read t ?'

(52) Relative Clause island
a. ettuge$_i$ gu jadongcha hoesa-uy sajang-un [han sigan-nae t_i gu gigye-lul
how the car company-Gen president-Top [one hour-within the machine-Acc
gochin] jungbigong-eke sangeum-lul juessni ?
fixed] auto mechanic-Dat reward-Acc gave

'How did the president of the car company give a reward to the mechanic who fixed the machine t within one hour ?'

b. (dodeche) muott$_i$-lul gu jadongcha hoesa-uy sajang-un [han sigan-nae t_i
the hell what-Acc the car company-Gen president-Top [one hour-within
gochin] jungbigong-eke sangeum-lul juessni ?
fixed] auto mechanic-Dat reward-Acc gave
'What (the hell) did the president of the car company give a reward to the mechanic who fixed t within one hour ?'

c. ettun gigye$_i$-lul gu jadongcha hoesa-uy sajang-un [han sigan-nae t_i
which machine-Acc the car company-Gen president-Top [one hour-within
gochin] jungbigong-eke sangeum-lul juessni ?
fixed]auto mechanic-Dat reward-Acc gave
'Which machine did the president of the car company give a reward to the mechanic who fixed t within one hour ?'

d. i-junge ettun gigye$_i$-lul gu jadongcha hoesa-uy sajang-un [han
out of these which machine-Acc the car company-Gen president-Top [one
sigan-nae ti gochin] jungbigong-eke sangeum-lul juessni ?
hour-within fixed] auto mechanic-Dat reward-Acc gave
'Which of these machines did the president of the car company give a reward to the mechanic who fixed t within one hour ?'

What all the data hitherto considered in this section show is that there might be a similar argument-adjunct asymmetry even in wh-extractions out of strong islands, as can be seen in (45). Also, the barrier defined in (38) may be neutralized (debarrierization) and thus A' dependency can be established even across the barrier, if extracted wh-phrases are highly referential, as exemplified by (51c and d) and (52c and d).

In light of this observation, I propose a notion of Barrier Defiability, which manifests the varying degrees of debarrierization according to the referential hierarchy in (37).

(53) Barrier Defiability: The more referential a wh-phrase is, the greater the barrier defiability.

Summary

The goal in this paper was to find the proper correlation between the notion of referentiality and A-bar dependency. In Section 1, on the basis of the notion of referentiality defined by phi-features, I showed how the analogy between A' dependency and long distance binding can be drawn. The specification of phi-features renders arguments referential (long distance A' dependencies) and adjuncts non-referential (local A' dependencies) in the same manner that it makes the Korean long distance anaphor more referential than the local anaphors. With the derived account for the argument-adjunct asymmetry in weak islands (A'-chains), other types of dependencies such as X^0-chains and A-movement were dealt with in a similar manner. Finally, to accommodate different types of dependencies into a uniform notion of locality, I defined relativized

local domains, and provided the precise correlation between referentiality and the length of X(P)-Chains. In Section 2, the initial definition of referentiality was refined as the set theoretic notion of referentiality in view of the different degrees of strength in A' dependencies across wh-islands. It was shown that the relative strength of A' dependencies across weak islands correlates with the revised notion of referential hierarchy: adjunct wh-phrases < bare wh-phrases < which N < partitive wh-phrases. In Section 3, I considered strong islands. I first showed why an independent notion of barrier may be required to properly constrain A'movements across the strong islands, in the same spirit of Rizzi (1990). Then it was shown that there may be an argument-adjunct asymmetry even in wh-extractions out of strong islands. It was noted that if extracted wh-phrases are highly referential according to the above referential hierarchy, the barrier may be neutralized and thus an A'dependency can be established even across a strong island. This defiance of a barrier was referred to as Debarrierization, which is reflected in the relative notion of Barrier Defiability.

NOTES

[1] In the case of Pseudo-Opacity and Inner Islands, Rizzi argues that adverbial QP (*beaucoup*, VP Specifier) and negation function as intervening potential A-bar antecedents which create opaque domains for adjunct wh-traces.

[2] For Factive island, Manzini suggests that there may be an empty factive operator in the embedded Spec CP position. This factive operator may serve as an intervening potential A-bar antecedent, and block the categorial index dependency for the adjunct wh-trace with the barrierhood of an embedded CP. This being the case then, Factive islands may also be explained by Rizzi's Relativized Minimality, even though Rizzi argues that the factive complement is an intrinsic barrier.

[3] For some evidence that long-distance scrambling is A'-movement, look at the arguments that Mahajan (1990) and Saito (1992) provide. Lee (1993) provides some diagnostics to be used to distinguish A'-movement from A-movement.

[4] There have been three major approaches to the issue of long-distance binding, namely, Manzini and Wexler's (1987) parameterization of local domains, the reclassification of long-distance anaphors as logophoric pronouns, and the LF-movement approach. Some non-movement approaches are Progovac's (1992) Relativized Subject and Manzini (1992).

[5] Among the phi-features (person, gender, number), given that all nominal expressions should be inherently specified in terms of number feature (sg. or pl.), the number feature

may not be referentially significant and thus may not play any role in determining relative referential hierarchy between two expressions A and B. This may be rather obvious because all the anaphoric expressions in (10) should be changed into corresponding plural forms by the affixation of the plural marker *-tul*, if their antecedents are plural. This is due to the requirement that coindexed NPs agree in syntactic number. Then, the number feature, functioning only as the means to satisfy a peripheral morphological agreement in number between binder and bindee, may be simply vacuous in determining referential hierarchy.

[6] Reinhart and Reuland (1993) also briefly note that the notion referentiality may correlate with the specification of phi-features.

[7] One might wonder why a similar transmission of phi-features is not possible between the local anaphors *cakicasin & selo* (which have no phi-features that are referentially significant) and their antecedents. Once the transmission of phi-features becomes possible from the antecedents to the local anaphors, the local anaphors will come to have the phi-features that their antecedents carry. Thus, the analysis would incorrectly predict that they too can be long distance bound. Here I propose that transmission of phi-features is possible only along a movement chain. As for the dependency between anaphors and their antecedents, since there is no movement involved, such phi-feature transmission is not possible due to the absence of transmission path, and the local anaphors *cakicasin & selo*, with no phi-features, should be bound only locally like adjunct wh-traces. Note that here I am not adopting the LF-movement approach on long distance anaphors.

[8] See note 3.

[9] The exact nature of clitic placement in Romance languages is beyond the scope of this work. According to Kayne (1989), two conditions should be met for clitic climbing (long distance cliticization): one is that non-finite infl must L-mark VP, and the other is a structural requirement of permitting infl to comp to matrix infl movement. These two conditions are directly related to the difference between Italian and French in terms of clitic climbing, according to him.

[10] Sportiche (1992) notes that there have been two main different analyses on clitic placement, namely, movement approach and base generation approach. He reconciles the two approaches by arguing that the clitic is base generated as a head in the surface head position of some clitic projection, the Spec position of which is to be occupied at a later derivation by pro or an overt XP through some phrasal movement. He argues that the nature of this movement necessitates the Clitic Criterion in the same spirit of May's (1985) Wh-Criterion. For different approaches on clitic placement and some hard to deal with issues, interested readers should look at references cited therein.

[11] Clitics are overtly marked for Case (Nom, Acc, Dat, Gen, Loc).

[12] See note 7.

[13] Cinque (1990), to be discussed below, uses Pesetsky's (1987) notion of D-linking in explaining A' dependency across wh-islands.

[14] As far as A-movement is concerned, I am basically adopting Manzini's (1992) approach, namely, case-marking (K-government), even though Manzini's system has problems in view of the data in (8) and long-distance binding phenomenon. Her system also has other numerous problems to be discussed in subsequent sections.

[15] An analogous account may be given for the strict local nature of Noun Incorporation in Baker (1988), since the class of nouns that undergo noun incorporation (obeying the Head Movement Constraint) may carry no Case feature. Long distance cliticization is possible however because clitics (N° category) in general are clearly marked for Case (see note 11). Thus clitics carry some intrinsic Case feature, which will properly licence the phi-features they carry for referential interpretation.

[16] Progovac (1992) took a non-movement approach toward the issue of long distance binding. She argued that only an X° category may be an antecedent for an X° anaphor and only XP (Specifier) may be an antecedent for a bimorphemic phrasal anaphor. In other words, she relativized the definition of local domains to the type of anaphors involved (XP anaphor vs. X° anaphor).

[17] See note 3 for the A-bar nature of (wh-) scrambling.

[18] Tense island effects may be observed only when the extracted wh-phrases are bare interrogatives such as *who*, *what*, etc., as in (26b), (27b), and the following English data Manzini provides.

(i) * What$_i$ do you wonder how I repaired t_i ? To be compared with :
(ii) ? What$_i$ do you wonder how to fix t_i ?

[19] Nevertheless, Rizzi's notion of referentiality based upon the argumental and non-argumental (quasi-argumental) distinction, in spite of its vagueness in definition, may capture the general argument-adjunct asymmetry in wh-extraction out of indirect questions.

[20] The different degrees of acceptability in (29) are shared by most of the native speakers I consulted.

[21] There are some other additional problems in the D-linking approach. First, as Rizzi (1990) and Kroch (1989) note, Cinque's crucial utilization of the notion of D-linking alone can not explain the following argument-adjunct asymmetry: [(8) in Kroch (1989)].

(i) a. * For what reason don't you know if we can say [that Gianni was fired e]?
b. ? What reason don't you know if we can give e for Gianni's firing ?

Kroch observed that both wh-phrases in (i) would be equally referential in terms of D-linking. Then this would show that the asymmetry between arguments and adjuncts in extractibility out of weak islands can not be completely captured by referentiality effects based upon the notion of D-linking. The above data is in part what motivated Rizzi (1990) to argue contra Cinque's (1990) use of D-linking. His notion of referential (argumental) theta roles needs to be maintained to derive the general argument-adjunct asymmetry in escapability out of weak islands. Second, according to Pesetsky (1987) *how many N* type wh-phrases, like *who* and *what*, may not be D-linked. Assuming that the following questions in (ii) are seeking an answer for a number of problems without the relevant existential presupposition in the sense of Kroch (1989), then both interrogative phrases in (ii) may be non-D-linked. Nevertheless, in the following data, there is a typical argument-adjunct asymmetry in extractibility out of a wh-island.

(ii) a. ? Combien de problemes ne sais-tu pas comment resoundre t ?
'How many problems don't you know how to solve ?'
b. * Combien ne sais-tu pas comment resoundre [t de problemes] ?
'How many don't you know how to solve of problems ?'
[Ch3 (34) in Rizzi (1990)]

Therefore it may not be clear how the notion of D-linking can account for another argument-adjunct asymmetry as in (ii). Third, following Enc (1991), if we assume that universally quantified NPs with covert partitive reading may be interpreted as being D-linked and specific, then the following data would remain unexplained under the notion of D-linking.

(iii) * Every man, I wonder why John criticized t.

In the above data, *every man* is topicalized out of a wh-island. Why the long distance dependency between it and its trace may not be possible is unclear because the universally quantified NP is D-linked in the sense of Enc (1991). The data (iii) also poses a problem for Manzini (1992) because the topicalized phrase is clearly case-marked (K-governed). She attempted to provide a solution for similar Italian data by arguing that for sentences with topicalized universally quantified NPs, the relevant LF-representation is the one where only the non-K-governed Determiner (non-case-marked *every*) moves out of wh-islands, hence the failure of long distance A' dependency. This solution, however, is not convincing enough.

[22] Mahajan (1991) argues that only specific phrases can enter long distance A' dependency out of weak islands. However, as the Korean data in (30) shows, a non-specific phrase can also move out of a wh-island. Assuming that specificity is another binary notion, it cannot adequately handle the multi-way contrasts among the different wh-phrases in (26), (27), and (29).

[23] Enc (1991) argues that Pesetsky's (1987) D-linking may be described as specificity. Then both *which N* type wh-phrases and partitive type wh-phrases in (26), (27), and (29) would be specific. In fact, Enc's analysis implies that *which N* type wh-phrases, being D-linked, may be interpreted as having the covert partive reading *which of the N*.

[24] As I mentioned in note 23, if it is the case that *which N* type wh-phrases, being D-linked and specific, may be interpreted as a covert partitive as Enc's (1991) notion of specificity implies, this entails that there may be no difference in meaning between *which N* type and partitive type (especially *which of the N* type) wh-phrases.

[25] Partitivity may function to define a narrower set even in quantified Nps. See note 26.

[26] Assuming that partitivity and noun-modifiers such as relative clauses, (participial) adjectives and so on may function to carve out a smaller subset, (35) and (36) may be generalized to cases where quantified phrases are topicalized out of wh-islands.

(i) a. * Every woman, I wonder why Susan hated t
b.?(?)Every one of these/the women, I wonder why Susan hated t
c. ? Every woman that Mary brought to that party, I wonder why Susan hated t
(ii) a. * Every statement, I wonder why he has retracted t
b.?(?)Every one of these/the statements, I wonder why he has retracted t
c. ? Every statement made yesterday by Clinton, I wonder why he has retracted t today.
(iii) a. * Someone, I wonder how my boss will be able to find t
b. ? Someone as smart as Mary, I wonder how my boss will be able to find t
(iv) a.?(?)How many books do you wonder whether John read t yesterday ?
b. How many of these books do you wonder whether John read t yesterday ?

[27] As for the extraction of adjunct wh-phrases like *how*, *why*, etc., the relevant questions are not seeking an answer from entities in the domain of discourse, because they do not denote any referential entity. The case is different for argument wh-phrases where the relevant questions are always seeking an answer from referential entities in the domain of discourse. For adjunct wh-phrases, there may be no entity referred to by them. Due to this non-existence of denotative entity, there may be no reference for adjunct wh-phrases unlike argument wh-phrases. Since they don't have any referent at all, there may be no (contextually) defined set from which their denotation comes. Therefore they should be regarded as the least referential element on the hierarchy (37).

[28] For Cinque, L-marking is a direct selection by a lexical head (sisterhood relation) whereas theta-marking can be either a direct seletion or an indirect selection by a lexical head. Thus theta-marking is a looser notion than L-marking, according to him.

[29] The extraction of adjunct wh-phrases out of weak islands can also be independently ruled out by Rizzi's Relativized Minimality.

[30] The government barrier may be independently required for Cinque's Italian data, which shows that adjunct (wh-)phrases can not be extracted out of some weak islands (indirect CP complements that are not L-marked) because Rizzi's Relativized Minimality would not be relevant for the adjunct (wh-)traces inside those indirect CP complements (weak islands, according to Cinque). See page 39 of Cinque (1990).

[31] See notes 1 and 2.

[32] Rizzi (1990), in note 6 of Ch.1, also notes that his notion of Relativized Minimality may not be relevant for strong islands for the same reason, namely, because of the non-existence of intervening potential A-bar antecedents for A-bar traces within strong islands. This may be why he states that a separate notion of barrier may be required to block (all) A' dependencies across strong islands. His definition of barrier is basically Cinque's government barrier. Here I am simply arguing along the same line of reasoning as what Rizzi mentioned concerning strong islands.

[33] As for some acceptable NP extractions out of strong islands, including such cases as (40), and especially for the case of possible relativization of argumental noun phrases (but not PP arguments) out of strong islands, Cinque (1990) does not resort to the A-bar movement chain but to empty resumptive pronominal tactics. Therefore, in those cases, what apparently lookes like a wh-trace (variable) is in fact an A-bar bound empty resumptive pronoun (pro) according to him, hence the connection between the A-bar antecedent and A-bar bound pro is not sensitive to movement constraints like Subjacency (strong islands), because there is no move-*a* involved. See Ch. 3 of Cinque (1990) and Lasnik & Stowell (1991) for some counterarguments.

[34] According to Manzini (1992), a categorial index dependency can not be established between the adjunct wh-phrase and its trace in the following example because of an intervening NP barrier.

(i) * How$_i$ did you see $_{NP}$[many attempts $_{CP}$[to portray Mary t_i]] ?
[(32) of Ch.2 in Manzini (1992)]

In (i), after *how* reaches the embedded Spec CP position, the wh-phrase must move beyond the embedded NP in one fell swoop, because there is no additional internal A-bar Spec position inside NP. Manzini assumes that Spec NP is not an A-bar position. The movement should cross the NP barrier, hence the ill-formedness of the above data.

[35] As for the verb phrase, *announce a plan to--*, in sentence (44d), the process of reanalysis of [V + N] as [V], which is required to debarrierize the embedded CP, is not possible, because *announce a plan to fix--* is not synonymous with [V] *plan to fix--*, even though [V + N] *have a plan to--* can be reanalysed as synonymous with [V] *plan to--*.

[36] For Rizzi (1990), this argument-adjunct symmetry in strong islands may be guaranteed through Cinque's (1990) notion of government barrier (see note 32). Cinque derives the above symmetry through two different notions of barrier, namely binding barrier and government barrier (also see note 33). For Manzini (1992), both address-based dependency and categorial index dependency can not be established across strong islands because government will be blocked by an intervening barrier that is defined upon the syntactic condition g-marking.

[37] More data which may show an argument-adjunct asymmetry in strong islands:

(i) a. Which car/Which of these cars did you feel good after fixing t ?
b. * How did you feel good after fixing the car t ?
(ii) a. Which girl/Which of these girls did you feel good after dating t ?
b. * How did you feel good after dating Susan t ?
(iii)a. Which of these problems did you feel relieved after solving t?
b. * How did you feel relieved after solving the problem t ?

Manzini (1992) provides the following relative clauses which show a similar type of argument-adjunct asymmetry in strong islands.

(iv)a.(*)A doctor who$_i$ [I felt better [after consulting t_i]]
b. * A reason why$_i$ I felt better [after consulting my doctor t_i]
[(104) and (107), Ch.3 in Manzini]

The account Manzini gives for the relatively well-formed result of (iv.a) is that the embedded adjunct CP may be reanalyzed as a complement. However, it would not be clear why (iv.b) is not allowed under the same reanalysis. The contrast between (iv.a) and (iv.b) may be accounted for by having recourse to relative referential hierarchy among different wh-phrases, together with the notion of Barrier Defiability (to be discussed below).

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K'ICHE' MAYA VERBS OF BREAKING AND CUTTING

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Abstract: K'iche' Maya divides the breaking and cutting domains into much more specific actions than English or Spanish, e.g., -pi'i:j 'break something soft', -joyopi:j 'break off a banana'. K'iche' does not have a general word for breaking that can be substituted for the specialized breaking verbs in the way that English 'break' can be used to describe more specific senses of picking, popping, smashing or shattering. Thus, K'iche' has gaps in its lexical and conceptual structure with no equivalent lexical or phrasal expressions for English 'break' and 'cut'. Such facts pose severe difficulties for the notion of a universal conceptual structure underlying language.

A number of Mayanists have commented on the relative abundance of Mayan verbs in different domains (Berlin 1967, Brody 1978, Furbee 1974, Haviland 1992, Norman 1973). A conflation of positional and manner adverbial information in the semantic representations of verbs seems to drive lexical proliferation in the Mayan languages. I first encountered the problem of Mayan verb abundance when transcribing K'iche' Maya breaking and cutting verbs. I remember quite vividly my bafflement over the profusion of breaking verbs K'iche' toddlers were using in my recordings. They used at least four different verbs (*-etzalob'*, *-pax*, *-pi'* and *-q'upi*) to label breaking events. Since my research focus was on inflectional morphology at the time, I postponed further investigation of K'iche' verb semantics. I finessed this puzzle by the simple expedient of translating all of these verbs as 'break' and hoped that context would provide enough information for me to work out the more subtle distinctions later.

Years later I stumbled onto the same phenomenon in my introductory linguistics class. Knowing that K'iche' had a variety of breaking verbs I polled my students on breaking verbs in their languages. I was surprised to find that my naive question (How do you say 'break' in your language?) produced only one or two verbs in each language. When I talked to several students afterwards, I discovered that they did, indeed, have more breaking verbs. They just volunteered the first verb that came to mind when I asked for a translation. I have since developed a more refined approach to eliciting breaking and cutting verbs through illustration and example.

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These experiences acquired some urgency for me through a reading of Quine's work on the inscrutability of reference (1960). Quine uses translation as one of his key arguments against determinant semantic theories. A determinant semantics would provide a fixed set of universal concepts for semantic interpretation. Languages could then choose how to lexicalize these concepts through lexical or phrasal forms or through the conflation of several concepts in a single lexical entry. Quine argues that the concepts expressed by natural languages are indeterminant in that they lack a complete specification. Indeterminacy allows the conceptual change evident in the evolving concepts of everyday artifacts (Petroski 1992) and the natural world (Putnam 1990). One implication of semantic indeterminacy is that translation between languages is only approximate because the concepts underlying words and phrases are incomplete. Translators have no objective algorithm to insure exact translation so they are forced to improvise ways to hint at the broad outline of a word's meaning. I will show that the domain of breaking and cutting verbs is particularly revealing in this regard and supports Quine's position on the inscrutability of reference. Semantic indeterminacy has significant implications for current linguistic theory which I will touch on briefly.

Two years ago I revisited Guatemala to elicit a definitive set of K'iche' breaking and cutting verbs and a more explicit notion of their semantic range. I started with a careful consideration of the range of actions English verbs are typically applied to. Dictionaries generally break lexical entries into a variety of uses or 'senses'. The American Heritage College Dictionary lists twenty-seven transitive senses for *break*:

I. **break**:

1. To cause to separate into pieces suddenly or violently; smash.
2. To divide into pieces, as by bending or cutting: *break crackers*.
3. To snap off or detach.
4.a. To fracture a bone of: *I broke my leg*.
   b. To fracture (a bone).
5. To crack without separating into pieces.
6.a. To destroy the completeness of (a set or collection).
   b. To exchange for smaller monetary units: *break a dollar*.
7. To disrupt the uniformity or continuity of: *a plain broken by low hills*.
8. *Elect*. To open: *break a circuit*.
9.a. To puncture or penetrate: *The blade broke the skin*.
   b. To part or pierce the surface of: *a dolphin breaking water*.
10. To cause to burst.
11. To force one's way out of; escape from; *break jail*.
12.a. To prove false: *They broke my alibi*.

b. To uncover the basic elements and arrangements of: *break a code*.
13. To make known, as news: *break a story*.
14. To surpass or outdo: *broke the record*.
15. To overcome (a force or resistance): *break the sound barrier*.
16. To put an end to: *break a strike*.
17. To lessen in force or effect: *break a fall*.
18. To render useless or inoperative: *We broke the radio*.
19. To weaken or destroy, as in spirit or health.
20. To cause the ruin or failure of (an enterprise, for example).
21. To reduce in rank; demote.
22. To cause to be without money or go into bankruptcy.
23. To fail to fulfill; cancel: *break one's plans*.
24. To fail to conform to; violate: *break the law*.
25. *Law*. To invalidate (a will) by judicial action.
26.a. To give up (a habit).
b. To cause to give up a habit.
27. To train to obey; tame.

Such entries display an untidiness that has prompted a long history of lexicographic dispute, but relatively little attention from linguists (Norvig & Lakoff 1987). The primary issue is the degree to which these entries represent distinct concepts of breaking. The central sense seems to be to cause a fracture. The fracture may result in either complete separation (senses 1-3) or incomplete separation (senses 4, 5 and 7).

Taking these entries as separate senses accounts for their varied meanings, but creates new problems. A separate sense analysis leaves unexplained why English lexicalizes just this set of concepts with the verb *break*. Indeed, the separate sense analysis fails to respond to the central issue for generative linguistics—how speakers extend their words to novel events. The productivity arguments for generative syntax apply with equal force to lexical semantics since speakers must decide how to adjust limited vocabularies to the infinitely varied demands of the real world in exactly the same way they adjust sentence structure to the demands of discourse (Ellis 1993). Since no two objects break in exactly the same way there is no way to specify the semantic range of the English verb *break* in advance.

The separate senses of *break* all describe fractures of one sort or another. The verb *break* does not specify a particular range of breaking actions, objects, instruments or manners. Any entity, real, imagined or unimagined, may be 'broken'. The more metaphorical senses of *break* merely specify the fracture of some abstract entity such as news or a strike. The American Heritage Dictionary includes several synonyms in its definition of

break. These include *separate, smash, divide, bend, cut, snap off, fracture, crack, destroy, exchange, disrupt, open, puncture, penetrate, part, pierce, burst, escape, prove false, uncover, make known, surpass, outdo, overcome, put an end to, lesson, render useless, weaken, destroy, ruin, reduce, demote, bankrupt, cancel, violate, invalidate, give up* and *tame*. As limited as this list is, you can begin to see the galaxy of concepts that enter the range of breaking in English. These synonyms specify more limited ways of breaking things, but the main consideration for now is that English allows its speakers to use the more general verb *break* to label each of these specific events. Smashing, cracking or popping something implies that it is broken.

A semantic determinist could maintain that the English verb *break* simply conflates all of these concepts. Finding that another language lacked the more general term, and used more specific verbs that translate as *smash* or *pierce* would be uninteresting insofar as one could still preserve the determinist set of fixed, universal concepts. A proof of translational indeterminacy requires a demonstration that exact translation is impossible even modulo a Boolean algebra covering more specific concepts.

Obviously, the English verb *break* cannot be defined as the sum total of these concepts. Its senses only partially overlap the senses of each of the proposed constituent senses. The main sense of *separate* allows for reattachment while *break* does not. *Smash* implies complete destruction caused by the disproportionate application of force; *break* does not. *Divide* implies a calculation of proportions; *break* does not. Even this dodge of the semantic determinist will not account for the exact range of senses attributed to *break*.

While *break* is apparently oblivious to a number of possible constraints in its range of application, it does have its own peculiar set of constraints. Thus, *break* is applied freely to one or three dimensional flexible objects like thread and bread, but not to two dimensional, flexible objects like paper or blankets. English lexicalizes this distinction as the difference between the verbs *break* and *tear*. English speakers are sensitive to this difference and insist that breaking and tearing are distinct 'concepts'. Likewise *break* is insensitive to a range of instruments used in the action such as hands, feet, teeth, sticks, clubs or bricks. However, the use of edged instruments triggers another semantic constraint—the use of the verb *cut*. A complete semantic theory needs to explain why English speakers believe that a popping or cracking event implies that something broke, whereas tearing or cutting something does not.

With these preliminaries out of the way, I can now introduce the K'iche' verbs of breaking and cutting. These verbs are listed in (II). I provide two forms for each verb. The first is transitive and the second intransitive.

Each is followed by an English translation and representative objects the verb applies to. My translations are at best suggestive of the range of objects the verbs apply to, and I caution readers to avoid the temptation to treat them as complete translations. Going through this list it is possible to pick out several K'iche' verbs that are similar to subsenses of *break* in English. The verb *-etzalob'a:j* (7. to break down; ruin) is close to sense 18 of *break*—to render useless or inoperative. The verb *-poq'i:j* (26. to pop; to explode) is close to sense 10 of *break*—to cause to burst. Other K'iche' verbs lack a simple translation into English, e.g., verb 1 *-chiko:j* (to break by throwing the object itself), verb 3 *-ch'akati:j* (to break off a small piece) and verb 22 *-paxi:j* (to break clay, rock). I especially like verbs 14 *-joyopi:j* (to break a banana from a bunch of bananas) and 11. *-jochopi:j* (to break a banana by failing to support the whole bunch).

II. K'iche' Breaking and Cutting Verbs

1. -chiko:j/-chikoxik [to break by throwing the object itself, e.g. chest, stool, pot]
2. -chup/-chupik [to snuff out something, e.g. candle, light; to erase marks]
3. -ch'akati:j/-ch'akatixik [to break off a small piece, e.g. bread to feed hens]
4. -ch'ol/-ch'o:lik [to peel, e.g. fruit, vegetables, animals, skin]
5. -ch'up/-ch'upik [to pick large fruit, e.g. peaches, pineapples, melons]
6. -b'oq/-b'oqik [to pick a plant from the ground, roots and all, e.g. onions]
7. -etzalob'a:j/-etzalob'ik [to break down; ruin, e.g. computer, car, zipper]
8. -jach'/-jach'ik [to pick corn, e.g. the cob, the ear, the kernels, the husk]
9. -jisi:j/-jisinik [to crack, slit, e.g. glass, paper; to operate on someone]
10. -jixi:j/-jixinik [to tear leaves along the veins]
11. -jochopi:j/-jochopinik [to break a banana by failing to support the whole bunch]
12. -jok'/-jok'ik [to grind, e.g. lime, rice, wheat]
13. -jol/-jolik [to pull entire leaf and part of stem from corn in a downward motion]
14. -joyopi:j/-joyopinik [to break a banana from a bunch of bananas]
15. -kabiq/-kabiqik [to shell corn by twisting the cob in one's hands]
16. -ke'e:j/-ke'exik [to grind corn]

17. -k'et/k'etik [to shell corn with one's thumb—imitating a hen pecking corn]
18. -mak/-makik [to pick small beans, e.g. coffee, beans]
19. -mich'/-mich'ik [to chop, e.g. plants; to pluck, e.g. feathers, pine needles]
20. -pachale:j/-pachalexik [to smash something with one's foot]
21. -paq'i:j/-paq'inik [to split, e.g. boards, watermelon, balloon]
22. -paxi:j/-paxik [to break clay, rock, e.g. glass, plate, cup, rock, pot]
23. -pitz'itz'e:j/-pitz'itz'exik [to crush something soft, e.g. clay]
24. -pi'i:j/-pi'inik [to break something soft, e.g. book, tortilla, clay, hardboiled egg; to split or break hair, plate; to divide, e.g. road]
25. -pich'i:j/-pich'inik [to squash bugs, e.g. lice, fleas, worms]
26. -poq'i:j/-poq'ik [to pop, e.g. bubble, balloon; to explode, e.g. bomb]
27. -qasa:j/-qajik [to descend; to break in a downward fashion, e.g. arm, leg, stick, tree]
28. -qopi:j/-qopinik [to cut in an unspecified manner]
29. -q'at/-q'aatik [to cut carefully]
30. -q'ipi:j/-q'ipinik [to chip; to make smaller, e.g. mug, roll up pants legs, break sticks across one's knee for kindling]
31. -q'ol/-q'olik [to pick leaves by tearing across the base of the leaf, e.g. picking flowers, leaves to wrap tamales and tortillas]
32. -q'upi:j/-q'upinik [to break something hard, e.g. bridge, dam, candle, basket, stick, chair, tooth]
33. -rach'aqi:j/-rach'aqinik [to tear, e.g. pants, cloth, paper]
34. -raqi:j/-raqinik [to smash something hollow, e.g. glass, pot, plate, chest, bubble]
35. -sak'i:j/-sak'inik [to crack, e.g. wall, melon, pot, plate, glass, skull, tree, board]
36. -t'oqopi:j/-t'oqopinik [to sever something long and flexible, e.g. rope, wire, string; to pluck hair]
37. -t'ub'i:j/-t'ub'inik [to tear, e.g. paper, clothes]
38. -weqi:j/-weqinik [to smash something hard, e.g. pot, wall, stone griddle, mile post]
39. -woqi:j/-woqinik [to shatter something fragile, e.g. eggs, vase, light bulb]
40. -xul/-xulik [to pick something by the stem, e.g. grapes]
41. -yoji:j/-yojinik [to dismantle something, e.g. table, bed, house, car]
42. -yokoke:j/-yokokenik [to crumple something, e.g. aluminum cans, paper cups]

K'iche' speakers are adamant about making the appropriate distinctions with each verb. The idea of interchanging verb 24 *-pi'i:j* (to break something soft) with verb 34 *-t'oqopi:j* (to sever something long and flexible), or 37 *-woqi:j* (to shatter something fragile) is as inconceivable for K'iche' speakers as the idea of interchanging *break* and *cut* is for English speakers. The ordinary K'iche' speaker assumes these verbs distinguish different concepts, and that a *pi'i:j* event does not imply a *t'oqopi:j* event.

My list raises several issues which I will not be able to address in this paper. One issue I will address is the number of different domains that I included in the K'iche' list. The set of 'picking' verbs are probably the most noticeable, but note that I have also included tearing, smashing and destruction verbs. Being an agricultural society, the K'iche' have developed a harvesting lexicon that rivals that of a Kansas farmer. Particularly noteworthy in this regard are verbs 10 *-jixi:j* (to tear leaves along the veins), 13 *-jol* (to pull entire leaf and part of stem from corn in a downward motion), and 29 *-q'ol* (to pick leaves by tearing across the base of the leaf). I include the 'pick' verbs because picking implies breaking, but adds purpose information to the event. Purposes range beyond the purely physical nature of the event, and I wanted to avoid making any assumptions about nonobjective features of the events in my initial study. The K'iche' 'banana' breaking verbs (14 *-joyopi:j* and 11. *-jochopi:j*) demonstrate how difficult it may be to establish an objective divide between the picking and breaking domains.

Restricting the discussion to the primary breaking and cutting K'iche' verbs still leaves much to account for. There are at least three verbs for breaking hard things (22. *-paxi:j* [to break clay, rock, e.g. glass, plate, cup, rock, pot], 32. *-q'upi:j* [to break something hard, e.g. bridge, dam, candle, basket, stick, chair, tooth] and 38. *-weqi:j* [to smash something hard, e.g. pot, wall, stone griddle, mile post]) as well as two verbs for breaking soft things (23. *-pitz'itz'e:j* [to crush something soft, e.g. clay] and 24. *-pi'i:j* [to break something soft, e.g. book, tortilla, clay, hardboiled egg; to split or break hair, plate; to divide, e.g. road]). I am unable to distinguish these verbs more precisely and therefore I cannot predict which of the breaking verbs would apply to such novel substances as plastic or jello. The K'iche' speakers that I worked with on this project also had trouble distinguishing between peripheral uses of these verbs although they could distinguish certain prototypical uses that were different in each case.

These verbs are not used interchangeably like the verbs *rip* and *tear* in English. In fact K'iche' has a similar set of tearing verbs (33. *-rach'aqi:j* [to tear, e.g. pants, cloth, paper] and 37. *-t'ub'i:j* [to tear, e g. paper, clothes]). K'iche' speakers readily acknowledge that these verbs are synonymous and can

be used interchangeably. So their intuitions about differences between the verbs for breaking hard and soft objects are real and imply that these verbs refer to distinct concepts. Furthermore, the events these verbs range over are constrained by the meanings of other verbs. For example, I would have predicted that crushing bugs would be a *q'upi:j* (verb 32) type of event considering how hard it is to squash a Guatemalan flea, but K'iche' speakers use verb 25. *-pich'i:j* for this action.

My conclusion from this line of reasoning is that K'iche' breaking verbs are difficult to define because their meaning is not captured by the same set of semantic features that underlies English breaking verbs. The difficult K'iche' breaking verbs do not correspond neatly to many subsenses of the English verb *break*. A verb like *q'upi:j* can be defined in English as a type of breaking event, but only by assuming the English break concept constitutes a neutral frame of reference. One can just as arbitrarily establish a *q'upi:j* frame of reference and define the English verb *break* as a complexive concept, arbitrarily ranging over parts of the *q'upi:j*, *pi'i:j*, *poq'i:j*, *raqi:j*, and *t'oqopi:j* domains. We have no theoretical warrant for assuming that *break* or any of its subsenses constitute universal concepts that are readily available to the language learner. In fact, there is acquisition data that shows such concepts are difficult to learn (Bowerman 1978; Pye, Loeb & Pao 1995). Quine's theory of semantic indeterminacy and the inscrutability of reference offer the best account of these observations.

Semantic indeterminacy has important consequences for theoretical and descriptive linguistics. It should be apparent that simple translations of verbs as 'break' will not document the range of events these verbs describe. It is necessary to examine the range of objects each verb is used with to begin to understand native speaker intuitions about verb meaning. We must guard against the assumption that just because a verb in another language has a use that corresponds to the typical use of an English verb that we have found a good translation in English. The assumption of semantic indeterminacy expands the scope of field investigations, and is thus preferable to the assumption of semantic determinacy.

For theoretical linguistics, the most important consequence of semantic indeterminacy may be the loss of a universal conceptual framework that would anchor syntax-semantics mapping rules. One area where these observations are applicable is the research on verb argument structure (Grimshaw 1990, Levin & Rappaport 1995). Much of this work assumes there is some uniformity between verb meaning and verb argument structure. The verbs *break* and *cut* play a prominent role in this literature since *break* participates in the causative alternation while *cut* does not (see 3). The usual argument is that *cut* entails an

instrument while *break* does not. One reason behind my research on *break* and *cut* in K'iche' was to determine whether the difference in argument structure holds for K'iche'. Hence, I provide transitive and intransitive forms for each verb.

3. The Causative Alternation in English

a. Ralph broke the stick.
b. The stick broke.
c. Alice cut the paper.
d. *The paper cut.

The K'iche' break verb 32. *-q'upi:j* alternates between transitive and intransitive stems via the absolutive antipassive. This antipassive suffix adds a vowel plus an /n/ to convert a transitive verb stem into an intransitive stem. Normally, the absolutive antipassive retains the agent and leaves the patient unexpressed (see 4).[1] However, the absolutive antipassive functions as an anticausative alternation for a few K'iche' verbs, including *q'upi:j* (see 5). For these verbs, the absolutive antipassive demotes the agent instead of the patient. It happens that the absolutive antipassive also has this effect on the K'iche' cut verb *qopi:j* (as shown in 6). I include one of the K'iche' passive forms in (6) to underscore the point that the absolutive antipassive functions as an anticausative alternation rather than a passive.

4. The Absolutive Antipassive Alternation in K'iche' Maya

a. Transitive
x-Ø-u/tze'-ej le: ak'ala:b' le: a Wan
ASP-3A-3E/laugh-TV the children the FAM John
John laughed at the children.

b. Absolutive Antipassive
x-Ø/tze'-en le: a Wan
ASP-3A-laugh-AA the FAM John
John laughed.

5. a. Transitive
x-Ø-u/q'up-ij le: che' le: a Wan
ASP-3A-3E-break-TV the stick the FAM John
John broke the stick.

b. Absolutive Antipassive
x-Ø/q'up-in le: che'
ASP-3A-break-AA the stick
The stick broke.

6. a. Transitive
x-Ø-u/qop-ij le: wu:j le: al Mari:y
ASP-3A-3E-cut-TV the paper the FAM Mary
Mary cut the paper.

b. Absolutive Antipassive
x-Ø/qop-in le: wu:j
ASP-3A-cut-AA the paper
The paper cut.

c. Passive1
x-Ø/qop-ix le: wu:j
ASP-3A-cut-PASS1 the paper
The paper was cut.

The K'iche' data show that cut verbs do not universally fail to undergo the causative alternation. One possibility is that the K'iche' verb does not mean the same thing as the English verb *cut*. By now, though, it should be evident that we cannot make claims about semantic equivalence given semantic indeterminacy. The K'iche' cut verb is as similar semantically as the K'iche' break verb is to its English translation. Denying translational equivalence for one, denies it for the other and undermines the search for syntax-semantics mapping regularities. I conclude that linguistic theory must be stated in terms of a relativistic semantic framework such as Dowty's (1991).

I have only touched on a few verbs in this paper. It should be evident that similar comments could be made about other verbs as well. The domains of picking, holding, opening and sitting would probably yield similar results. Verb concepts are supposedly more complex than noun concepts because of the many variables that are part of their meaning. Nouns may be recognized through perceptual or functional similarities, although functional similarities are more robust. The trouble is that verbs do the heavy lifting in functional definitions, so indeterminacy for verbs leads to indeterminacy for nouns. Knives may take any form so long as they cut; but cutting is indeterminant so the concept of a knife must be indeterminant as well.

My current research is devoted to understanding the consequences and implications of semantic indeterminacy for linguistic theory and language

acquisition. I am exploring the possibility of merging Quine's prototype semantics with Saussure's ideas of contrast. The basic idea is that speakers generalize an n-dimensional semantic space for each word on the basis of their exposure to the word and its contrast to other words on one or more dimensions of semantic space. Possible dimensions for breaking events include degree of force, direction of force, instrument, type of object, spatial configuration of the object, and the object's material, but semantic indeterminacy allows these dimensions to change at any time. The contrast between *break* and *tear* in English illustrates the way in which words serve to constrain semantic space. The lexicon can exploit some dimensions and thereby expand their semantic space. Mayan languages pay special attention to an object's configuration and position. Semantic space is relatively constrained by the preoccupations of human speakers, but not absolutely. New dimensions may be invented as needed to describe new objects or novel events.

NOTE

[1] I use the following abbreviations: ASP—aspect marker; AA—absolutive antipassive; FAM—familiar reference particle; PASS1—passive 1; TV—derived transitive verb suffix; 3A—third person, singular, absolutive cross-reference marker; 3E—third person, singular, ergative cross-reference marker.

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AN NP-MOVEMENT ACCOUNT OF TOUGH CONSTRUCTIONS[1]

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Abstract: Chomsky's (1981) wh-movement analysis of tough constructions is inadequate when tough subjects involving internal θ-relations are considered--unless, as Jones (1983) observes, generalized transformations, abandoned long ago, are now reintroduced in the Government-Binding (GB) framework. To replace Chomsky's solution and thereby to obviate the need for generalized transformations in GB theory, an alternative analysis is proposed in this paper in which the tough subject originates as an embedded object, is subsequently reanalyzed as the complement of a derived adjective, and finally undergoes NP-movement to subject position. It is shown that this analysis accounts for a wide range of data, including tough constructions exhibiting wh-island effects and tough constructions containing a parasitic gap. If the solution advocated here is correct, then it must be concluded that the reintroduction of generalized transformations is simply not motivated in the case of these constructions.

1. Introduction

Jones (1983) and Lasnik & Uriagereka (1988) have pointed out some serious problems which Chomsky's (1981) wh-movement analysis of tough constructions raises for Government-Binding (GB) theory. Unfortunately, these difficulties have gone unresolved to date; and tough phenomena still represent a major challenge to the theory. To address these problems with the intention of strengthening the credibility of GB theory, an alternative analysis of tough constructions is proposed in this paper to replace Chomsky's solution. Unlike his approach, in which the tough subject is claimed to be inserted at S-structure, this analysis provides a means by which GB theory can accommodate the 'standard' approach to deriving the subject: namely, by raising the underlying object to subject position in a process reminiscent of Rosenbaum's (1967) Tough Movement rule. The revised version of Tough Movement, now claimed to be a typical instance of NP-movement, is applied to a reanalyzed structure and raises the complement of a derived adjective to subject position. It is shown that, given certain well-motivated assumptions, this solution accounts for the two kinds of facts which Chomsky (1981, 1982) has used to motivate his wh-movement analysis: 1) tough constructions exhibiting wh-island effects and 2) tough constructions containing a parasitic gap. Moreover, this solution accounts for

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Jones's counterexamples to Chomsky's analysis with no difficulty. It is concluded, therefore, that if the solution proposed here is correct, then tough constructions need no longer be regarded as a 'problem area' for GB theory.

The organization of this paper is as follows. In Section 2 I outline Chomsky's analysis of tough constructions. In section 3 I discuss Jones's main arguments against his analysis. The remainder of this study is intended to offer a viable alternative to Chomsky's solution. I believe that the correct solution must not involve the application of wh-movement; otherwise, it will run into the same difficulties as Chomsky's analysis. Thus, some other device must be found to account for wh-island effects in tough constructions as well as tough sentences involving a parasitic gap. In section 4 I point out that such a device is already available in another part of the theory; and in Section 5 I proceed to develop a solution which utilizes this device to restrict the application of reanalysis so as to ensure that the intended first and last elements of a derived complex adjective are 'not too far apart'. Specifically, it is suggested that the rightmost element of the substring on which reanalysis operates must be 'accessible' to the leftmost element (the adjective), where 'accessibility' is defined in terms of the Subjacency Condition. This analysis accounts for wh-island effects in the complex adjective of a tough construction without involving the embedded object which is subsequently raised to matrix subject position. Section 6 deals with parasitic gaps. It is shown that, contrary to what Chomsky (1982) and others have assumed, wh-movement (that is, Movement-to-COMP) is not needed to license these gaps in tough constructions, if the embedded object undergoes Heavy NP Shift prior to reanalysis. This leaves an A'-bound trace in object position which licenses the parasitic gap in accordance with the specified environment in which these gaps can occur. In Section 7 I briefly compare this solution to the once widely accepted rule of Tough Movement. Finally, in Section 8 I discuss the implications of this analysis for GB theory, in light of the most recent efforts to achieve explanatory adequacy.

2. Chomsky's Analysis

In order to account for sentences like

(1) John is easy to please.

Chomsky (1981) proposes an analysis in which the D-structure underlying (1) contains an embedded complement clause, as in (2):

(2) e is $[_{AP}$ easy $[_{S'}$ COMP $[_{S}$ PRO to please PRO]]]

The matrix subject position in (2) is a non-θ-position (compare It is easy to please

John) and is therefore left empty at D-structure in accordance with the θ-criterion.[2] The subject of to please is in a position to which a θ-role is assigned and it is assumed to be the null element PRO. Moreover, the verb please also has an object θ-role to assign. As originally outlined in Chomsky (1977), where he observes that tough constructions exhibit wh-island effects,

(3) a. *John is easy to wonder whether to please.

b. *John is easy to persuade Mary of the need to please.

Chomsky (1981) maintains his earlier position that wh-movement is involved in the derivation of these constructions.[3] In this analysis PRO (= a null operator O) is inserted in the embedded object position at D-structure and subsequently moves to COMP leaving a coindexed trace in its original position. Thus (2) becomes (4):

(4) e is $[_{AP}$ easy $[_{S'}$ PRO_i $[_S$ PRO to please $t_i]]]$

Chomsky further assumes that (4) is subject to a rule of reanalysis, which converts the adjective-complement phrase to a complex adjective, as in (5):

(5) e is $[_{AP}$ $[_A$ easy to please] $t_i]$

John cannot fill the matrix subject position at D-structure, since, as noted above, this is a position to which no θ-role is assigned. However, if John is inserted at S-structure and, moreover, if John is coindexed with t_i, then John inherits its θ-role from t_i and thus satisfies the θ-criterion. Chomsky contends that if lexical insertion can occur freely either at D-structure or S-structure, as this analysis claims, then the theory of lexical insertion is simplified; that is, the requirement that lexical insertion takes place only at the D-structure level can now be eliminated.

3. Problems

A discussion of the problems which Chomsky's solution raises for GB theory is found in Jones (1983) (also see Lasnik & Uriagereka, 1988: 146-147). Jones's main objections on theoretical grounds involve two of Chomsky's proposals: 1) that adjectives like easy-to-please have undergone reanalysis, and 2) that lexical insertion of the matrix subject in tough constructions occurs at S-structure.[4] The effects of both proposals, Jones argues, are at variance with the theory.

Reanalysis and the Projection Principle. Consider first the effects of the reanalysis rule. Prior to reanalysis the verb please in John is easy to please obligatorily

assigns a θ-role to its direct object; therefore, the direct object position must be filled at D-structure, as in (2), in accordance with the θ-criterion. Then, in the transformational component the Projection Principle determines that wh-movement from this position to COMP leaves a coindexed trace, given that please subcategorizes for a direct object in the lexicon.[5] Once reanalysis has applied, however, as in (5), t_i is no longer in the direct object position of please but has now become a complement of the derived adjective easy-to-please. Since please can no longer assign a θ-role to t_i after reanalysis, Jones argues, 'either we must devise some principle to ensure that derived adjectives like easy-to-please θ-mark their complements in exactly the same way as the verbs which they incorporate or we must revert to the position adopted in pre-trace EST whereby θ-roles are determined exclusively at D-structure ...' (153-4).

Lexical insertion at S-structure. According to Jones, similar problems arise with respect to Chomsky's proposal that the matrix subject of a tough construction is inserted at S-structure rather than D-structure. Recall that Chomsky adopts this approach in order to ensure that the θ-criterion is not violated at D-structure, given that the matrix subject position is a non-θ-position. However, Jones observes that the lexical subject need not be a single lexical item but rather a complex syntactic structure involving internal θ-relation:

(6) a. The reviewer of that article was easy to please.

b. The claim that John saw Mary is hard to understand.[6]

In (6a) reviewer assigns a θ-role to that article; in (6b) claim assigns a θ-role to that John saw Mary, saw assigns a θ-role to Mary, and saw Mary assigns a θ-role to John. If θ-role assignment takes place at D-structure, as Chomsky assumes, then the matrix subjects in (6) must exist at that level (Lasnik & Uriagereka 1988:147). If this is so, then Chomsky's claim that the matrix subject of a tough construction is inserted at S-structure simply cannot be maintained.

Jones also notes that the matrix subject may be a transformationally derived structure:

(7) a. The city's destruction by the enemy was painful to watch.

b. The idea that John is likely to win is difficult to believe.

The passive construction in (7a) and the raising construction in (7b) are both derived by NP-movement (an instance of Move-α). But since transformations map D-structure onto S-structure, the matrix subjects in (7) which undergo NP-movement must be present at a pretransformational level, that is, at D-structure.

Finally, Jones observes that the matrix subject itself may be moved by transformation:

(8) a. Which person do you believe is easy to please?

b. John is believed to be easy to please.

c. The idea that John is easy to please seems to be difficult to believe.

According to Jones, the sentences in (8) suggest that the tough subject is not even inserted at S-structure, as Chomsky claims, but within the transformational cycle (156).

Jones concludes that from the facts in (6-8), 'it appears that what Chomsky is advocating ... is some sort of generalized transformation, similar to those adopted in Chomsky (1957) but abandoned subsequently, which inserts a lexicalized (and possibly transformed) syntactic structure into a designated position in the matrix clause in the course of the derivation' (156). The reintroduction of such transformations, Jones contends, does not simplify any part of the theory; moreover, he argues, the reintroduction of these mechanisms does not appear to be independently motivated.

Implications. For the above reasons, Jones rejects Chomsky's analysis of tough constructions, claiming that it 'has culminated in the situation found in Chomsky (1981) where we effectively have two mutually incompatible theories coexisting within the same model' (158). Jones does not propose a solution to replace Chomsky's, nor does he appear to believe that the problems associated with Chomsky's analysis can even be resolved within the Government-Binding framework. Indeed, Jones ends his paper by suggesting that, in light of the evidence provided by tough constructions, GB theory should be replaced with a more 'comprehensive' theory of grammar (159).

In Section 5 of this study, an alternative analysis of tough constructions will be proposed in the GB framework to address Jones's objections to Chomsky's solution and to demonstrate that the theory itself need not be replaced on account of these constructions. First, however, in order to help lay the groundwork for the proposals that I will develop in Section 5, I turn briefly to the apparently unrelated topic of what constitutes an Accessible SUBJECT in binding theory. My purpose in doing this is to show that there is a device in GB theory which Chomsky (1981) introduces in his definition of Accessible SUBJECT--henceforth the would not violate (WNV) device--which, I will argue, is also needed to account for wh-island effects in tough constructions.

4. Accessible SUBJECT and the Would Not Violate Device

The notion of accessibility is a crucial factor in determining the governing category of an anaphor or a pronominal in binding theory.[7] Chomsky (1981: 211-212) defines governing category as in (9), where Accessible SUBJECT is defined as in (10):

(9) β is a governing category for α iff β is the minimal category containing α, a governor of and a SUBJECT accessible to α.

(10) β is accessible to α iff α is in the c-command domain of β and assignment to α of the index of β would not violate the filter $*[_{\gamma_i} \ldots \delta_i \ldots]$. (my emphasis)

Chomsky's key phrase 'would not violate' in (10) is afforded a particularly lucid explanation in Lasnik & Uriagereka (1988:62) (where their (117b) = (10)):

> The modality of (117b)--the word would--is important. (117b) does not claim that α and β do have the same index. It does not claim that they should. It does not even claim that it is possible for them to have the same index. It simply says, 'Pretend we found α and gave it the index of β; what would we then have?' (their emphasis)

Since this paper is not concerned with binding theory per se, I will not discuss the consequences of (9) and (10) for the treatment of anaphora. What is important for our purposes is that in his definition in (10), Chomsky introduces a device, the WNV, by which the well/ill-formedness of a derivation is determined, not by actually applying an operation (indexation, in the case of (10)), but simply by imagining that the operation has been applied and concurrently checking for any would-be violations of the relevant condition(s) (for instance, the filter in (10)).

I assume that the WNV device is not necessarily peculiar to the definition in (10) and that it may be available at other levels of the grammar--provided that it is demonstrably needed to account for some specific phenomenon. In what follows I will argue that the fact that tough constructions exhibit wh-island effects is precisely such a case.

5. Toward an Alternative Solution

Jones's strongest argument against Chomsky's analysis of tough

constructions is that it is inadequate when the sentences in (6-8) are taken into account. These sentences in fact provide convincing evidence that tough subjects are inserted at D-structure and not at S-structure, as Chomsky claims. Keeping this in mind, I now proceed to develop an alternative solution to replace Chomsky's analysis of tough constructions. In the course of this discussion, the importance of the WNV device described above will become evident.

Assumptions. To begin with, let us again consider the sentence in (1), repeated below:

(1) John is easy to please.

Following Chomsky, I assume that the matrix subject position is a non-θ-position and is therefore left empty at D-structure. However, unlike his analysis, in the present solution John (rather than PRO) is claimed to be the underlying object of please. The D-structure underlying sentence (1) in this analysis is represented in (11):

(11) e is $[_{AP}\ [_{A}$ easy to please] John]

I further assume that Chomsky's rule of reanalysis is basically correct and that it converts the adjective-complement phrase in (11) to a complex adjective, as in (12):[8]

(12) e is $[_{AP}\ [_{A}$ easy to please] John]

Reanalysis and the Subjacency Condition. If John is inserted in embedded object position at D-structure, as this analysis claims, then one might suggest the possibility that John moves to COMP prior to (or perhaps in lieu of) reanalysis. Such a solution would be identical to Chomsky's (at least up to this point in the derivation) except that John (rather than PRO) is the object NP that moves to COMP. In fact, there is nothing in the theory which would prevent John in (11) from moving to COMP, resulting in (13):

(13) e is $[_{AP}\ [_{S'}$ John$_i$ $[_{S}$ PRO to please $t_i]]]$

However, as Chomsky (1986:113-4) observes, the subsequent movement of John from the embedded COMP to the matrix subject position results in a chain (John, e', e) in which John is the head, e' is the trace of John in COMP, and e is a variable which is A-bound by John, hence not A-free in the domain of the head of its chain, in violation of Binding Condition C. Thus, an analysis of (1) in which John first moves to COMP and then somehow ends up in the matrix subject position simply cannot be maintained in the present framework. In short, some

way other than Movement-to-COMP must be found to account for wh-island effects in tough constructions; and in the present solution, in which (11) is reanalyzed as in (12), it appears that the answer to this problem must lie with the reanalysis rule itself.

On comparing the strings in (11) and (12), we observe that there are at least two effects of reanalysis which are evident: 1) A is extended such that it now contains all of the substring from easy up to and including please, and 2) embedded S' and its internal constituency are eliminated. We also note that the complex adjective easy-to-please is the result of incorporating three elements: the initial element (the lexical adjective), the medial element to, and the final element (the infinitive). Indeed, it appears that all complex adjectives begin with a lexical adjective and end with a (transitive) infinitive or a preposition. What varies, though, is the amount of material which may intervene between the first and last elements, as in easy-for-us-to-please, easy-to-want-to-try-to-give-flowers-to, etc. Thus, we can describe a complex adjective in terms of the three main elements which it incorporates: the initial element, the final element, and an intervening variable.

Although reanalysis is by no means a movement rule, it resembles Move-α in at least three ways. For one thing, both processes relate two positions X and Y in a string ...X...Y... such that either movement takes place from one position to the other, or, in the case of reanalysis, an adjective A is extended from the position of X up to and including Y to derive a complex adjective of the form [$_{A}$ X...Y]. Second, both reanalysis and Move-α involve an intervening variable between X and Y. Finally, in the same way that a constituent can move 'just so far', it turns out that the initial and final elements of a complex adjective can be 'just so far apart', the distance appearing to be measurable in terms of the bounding nodes which separate these elements at D-structure.

The fact is that not all potential final elements of a complex adjective are 'accessible' to the adjective for reanalysis. For instance, in (14),

(14) e is [$_{AP}$ easy [$_{S'}$ COMP [$_{S}$ PRO to warn the police [$_{PP}$ about [$_{NP}$ your plan [$_{S'}$ COMP [$_{S}$ PRO to rob the bank]]]]]]]

warn and about both appear to be accessible to easy for reanalysis but rob does not, as evidenced by the grammaticality of (15a-b) contrasted with (15c):

(15) a. easy-to-warn

b. easy-to-warn-the-police-about

c. *easy-to-warn-the-police-about-your-p an-to-rob

Notice that in (14) warn and about are each separated from easy by one bounding node (S), while three bounding nodes separate rob and easy (S, NP, S). One possibility, then, is that a condition might be placed on reanalysis such that A cannot be extended across more than one bounding node. Clearly, though, this condition would be way too restrictive, at least as far as reanalysis in English is concerned.[9] For instance, consider the complex adjective in (17) derived from (16):

(16) e is [$_{AP}$ easy [$_{S'}$ COMP [$_{S}$ PRO to want [$_{S'}$ COMP [$_{S}$ PRO to try [$_{S'}$ COMP [$_{S}$ PRO to warn the police [$_{PP}$ about [$_{NP}$ your plan]]]]]]]]]

(17) easy-to-want-to-try-to-warn-the-police-about

Three bounding nodes (all S) separate about and easy in (16); yet (17) is grammatical. Thus, the contrast between (15c) and (17) cannot be accounted for in terms of the number of bounding nodes over which A has been extended.

It appears that rob in (14) is somehow prevented from undergoing reanalysis as in (15c) because it is included in the complex noun phrase your plan to rob the bank, which is an island (Ross 1967). Notice that therefore, hypothetically speaking, if successive cyclic movement were to take place by way of the intervening COMPs from the position occupied by rob to that occupied by easy, then a Subjacency violation would occur: in (14), movement from rob to the lower COMP would cross only one bounding node (S); however, subsequent movement to the higher COMP would cross two bounding nodes (NP and S) resulting in a Subjacency violation. By contrast, in (16), movement could occur from the position of about through each successive COMP to the position occupied by easy without violating Subjacency.

We can exploit this contrast to account for the ungrammaticality of (15c), in which rob is the final element of the complex adjective derived from (14). Specifically, not only is easy not accessible to rob for movement in (14), but rob is also not accessible to easy as a final element for reanalysis, where 'accessibility' is defined in terms of the Subjacency Condition:

(18) A final element Y is accessible to an adjective X for reanalysis iff:

(a) Y immediately precedes [NP, VP] or [NP, PP], and

(b) successive cyclic movement from the position of Y to the position of X would not violate Subjacency.

Using Lasnik & Uriagereka's interpretation of 'would' in (10) as a model, we note that (18) does not claim that movement takes place from the position of the final element to that of the adjective, nor that it should or could take place. It simply says, 'Pretend that an element were moved in successive cyclic fashion from the position of Y to the position of X; would a Subjacency violation occur or not?'

If it is stipulated that reanalysis is barred just in case the intended final element is not 'accessible' to the adjective, as this notion is defined in (18), then (15c) could not be derived from (14), since rob, unlike warn and about, is not accessible to easy in (14) for reanalysis. By contrast, the equally long complex adjective in (17) is possible because about in (16) is accessible to easy: successive cyclic movement from the position of the former to that of the latter would not violate Subjacency.

A couple of points should be made regarding the definition in (18).

First, consistent with (18) is the fact that the intervening variable (the material between X and Y) may itself contain one or more islands which are irrelevant for determining the accessibility of the final element, as in:

(19) easy-to-explain-your-plan-to-rob-the-bank-to

(19) incorporates the complex NP your plan to rob the bank. The infinitive rob could not be the final element in (19) for the same reason that (15c) is ungrammatical; yet as a part of the medial element which is incorporated in (19), rob is perfectly acceptable.

Secondly, I would point out that although Chomsky's definition of Accessible SUBJECT in (10) and the definition in (18) refer to two entirely different kinds of accessibility, the use of the WNV device is common to both definitions. (10) is thus viewed here as providing some independent motivation for the way in which accessibility is defined in (18). The WNV device is needed in this solution because despite the fact that reanalysis and Move-α both relate two positions X and Y across a variable and despite the fact that they both exhibit wh-island effects, they are still considered to be distinct processes, with Subjacency assumed to be a constraint on movement only--not on reanalysis. These assumptions, along with the reasonable claim that (11) is the correct D-structure underlying (1), can be maintained, provided that (18) is adopted as a way of measuring the distance between the intended first and last elements of the substring on which reanalysis is potentially operable. If these elements are 'too

far apart' in the sense of (18), then reanalysis cannot take place.

In the analysis that I am proposing, the derivation of sentence (1) from the D-structure in (11) is thus assumed to proceed as follows. First it is determined that please is accessible to easy for reanalysis:movement from the position of please (through COMP) to that of easy would not violate the Subjacency Condition. Next reanalysis is applied, resulting in the structure shown in (12). Finally, for reasons discussed below, John, now the complement of the derived complex adjective easy-to-please, moves to subject position, as in (20):

(20) $John_i$ is $[_{AP}\ [_A$ easy to please] $t_i]$

Interestingly, (20) is precisely the same S-structure which Chomsky attributes to sentence (1), but now the need to insert John at S-structure has been eliminated.

Derived Adjectives as θ-role Assigners. Consider the reanalyzed structure in (12), repeated below, from which (20) is derived in this analysis:

(12) e is $[_{AP}\ [_A$ easy to please] John]

Chomsky (1981:312) assumes (correctly, I believe) that the complement of a derived complex adjective like easy-to-please is in a θ-position. Recall, however, Jones's remark that in order to maintain this claim and also satisfy the Projection Principle, some other principle must be devised to ensure that easy-to-please θ-marks its complement in exactly the same way as the verb that it incorporates. Jones's position is understandable, if only because Chomsky fails to make clear just why it is that the complement of easy-to-please is in a θ-position. I believe that there is a reasonable explanation as to why Chomsky is correct on this point: quite simply, derived adjectives incorporating a verb are verbal adjectives, and as such, they share the θ-marking capabilities of other verbal adjectives.

One group of verbal adjectives in particular with which derived adjectives may be compared are passive participles, long recognized as behaving like adjectives for at least two reasons: 1) their inability to assign Case in English and many other languages and 2) the fact that they exhibit adjectival morphology in other languages (van Riemsdijk & Williams 1986:233).

Evidence that derived adjectives and passive participles treat their respective complements in exactly the same way is provided by facts about of-insertion, the rule by which the semantically empty preposition of is inserted before an adjective (and a noun) complement as a kind of Case-marker (Chomsky 1981:50):

(21) a. proud John

b. proud of John

A well-known characteristic of passive participles is that the device of inserting of to assign Case to their complements is not permitted:

(22) a. e was killed John

b. *It was killed of John.

Like other adjectives in English, derived adjectives like easy-to-please are also not Case-assigners. Significantly, they behave exactly like passive participles (rather than other adjectives) with respect to the impossibility of applying of-insertion:

(23) a. e is [$_A$ easy to please] John

b. *It is easy to please of John.

The facts in (21-23) suggest that derived adjectives and passive participles belong to the same subclass of adjectives, appropriately designated as verbal adjectives. Like all adjectives, they fail to Case-mark their complements; moreover, they share the additional property of disallowing of-insertion in the expected environment (hence requiring the application of NP-movement, as discussed below). In view of the participle-like nature of derived adjectives, it is reasonable to assume that they also θ-mark their complements and that, like passive participles, in doing so they preserve the θ-marking properties of the simple active verbs with which they are associated (for example, please in easy-to-please). The position taken here, therefore, following Chomsky, is that the complement of a derived adjective is indeed in a θ-position. Moreover, this holds without the need to devise some other principle to supplement the Projection Principle, contrary to what Jones suggests.

Finally, as in the derivation of passives, tough constructions in this analysis undergo NP-movement, by which the complement of the derived adjective is moved to the empty subject position. Thus, just as (22a) becomes (24), (23a) is changed to (25):

(24) John$_i$ was killed t_i

(25) John$_i$ is [$_A$ easy to please] t_i

In both (24) and (25), the movement of John to subject position ensures that John is assigned (nominative) Case, as required by the Case Filter; and the resulting sentences are grammatical.

Summary. The solution proposed here to account for tough constructions overcomes Jones's objections to Chomsky's analysis. First, the close similarities noted above between derived adjectives and passive participles lend credence to Chomsky;s assumption, adopted here, that the subcategorization properties of verbs like please in easy-to-please are preserved at S-structure in accordance with the Projection Principle. Moreover, this is so despite the obvious change in status that the direct object incurs as a result of having undergone reanalysis. Second, this solution obviates the need to insert John at S-structure (Chomsky's approach) rather than D-structure, thus allowing for the existence of more complex subjects like those in (6). The subject of tough constructions is claimed here to originate in object position at D-structure. Consequently, it may be complex, as in (6); it may be a transformationally derived structure, as in (7); and once NP-movement is applied, it may subsequently be moved, as in (8).

To provide further motivation for this analysis, I now turn to a related phenomenon, tough constructions that allow a parasitic gap. Chomsky (1982) has used such sentences to argue for the need to apply wh-movement in tough constructions. However, it is demonstrated below that there is an equally plausible analysis of these sentences in which the object NP undergoes Heavy NP Shift instead of Movement-to-COMP. This being the case, it is concluded that parasitic gaps can no longer be used to justify the need for a Movement-to-COMP analysis of tough constructions.

6. Parasitic Gaps in Tough Constructions

wh-movement Constructions. Chomsky (1982) has argued that parasitic gaps are licensed by the trace of Movement-to-COMP. Thus, in each of the following sentences the parasitic gap e is licensed by the wh-trace t:[10]

(26) a. Which articles did John file t without reading e

b. This is the kind of food you must cook t before you eat e

As illustrated in (27), the licensing trace cannot be an NP-trace:

(27) *The articles were filed t without reading e

These facts lead Chomsky to state the environment in which a parasitic gap can occur as

(28) ...α...t...e... (order irrelevant)

where α in (28) locally A'-binds t (1982:40). In (26a), t is locally A'-bound by which articles in COMP. Likewise, in (26b), the null operator that has moved to COMP in the relative clause locally A'-binds t. In (27), however, t is A-bound by the articles in subject position; thus, the parasitic gap in (27) is not permitted.

Tough Constructions and Dual S-structure Representations. Tough constructions, like wh-movement constructions, appear to allow a parasitic gap:

(29) The book is hard to buy without reading.

Accordingly, Chomsky represents the S-structure of sentence (29) as in (30):

(30) The book is hard to buy t without reading e

Following the environment specified in (28), the parasitic gap e in (30) appears to be licensed by t, which is presumably the wh-trace that results from Movement-to-COMP.

Clearly, though, if e in (30) is a parasitic gap, as Chomsky claims, then his analysis of tough constructions as outlined in Section 1 runs into yet more difficulties. The problem here is that in his analysis t in (30) is claimed to be an NP-trace, locally A-bound by the book in subject position--and not a wh-trace as (28) requires. This is so because in his solution the wh-trace created by Movement-to-COMP is converted into an NP-trace by reanalysis. Thus, contrary to what Chomsky would prefer, his analysis of tough constructions does not allow the parasitic gap in (30).

Chomsky immediately recognizes this problem; and to accommodate (30), he proposes

> an interpretation of reanalysis that assumes both the reanalyzed and the nonreanalyzed structures to be available at S-structure. This is entirely feasible, if we regard phrase markers as sets of strings rather than tree-like structures ... the implications seem worth pursuing, but I shall not do so here (1982:57).

In Chomsky's analysis of tough constructions, the nonreanalyzed structure in the derivation of (29) is the representation shown in (31):

(31) e is $[_{AP}$ hard $[_{S'}$ PRO_i $[_S$ PRO to buy t_i without reading e]]]

t in (31) is the wh-trace created by the movement of PRO to COMP. If both (30) and (31) are assumed to be available at S-structure, as Chomsky proposes, then supposedly t can be interpreted as a wh-trace (in (31)) for the sake of licensing the parasitic gap and, simultaneously, as an NP-trace (in (30)) so that the tough subject (the book), inserted at S-structure in his analysis, does not violate the θ-criterion (see Section 1).

Although Chomsky does not say so, his proposal might be regarded as global in the sense of 'looking back' to an earlier stage in the derivation (Levine 1984b:21-2). Technically, though, this depends on whether (31) is taken to be an earlier structure (a 'preanalyzed' structure) or, as Chomsky apparently intends, as one of two coexisting S-structures.[11] If the latter is assumed, then one might not object to the way in which Chomsky extends his analysis to account for sentences like (29)—were his analysis of tough constructions not problematic to begin with. It has been shown, however, that Chomsky's solution is inadequate when Jones's counterexamples in (6-8) are taken into account. To overcome these difficulties, an alternative analysis has been proposed in which the tough subject is claimed to be inserted in embedded object position at D-structure (instead of matrix subject position at S-structure, as Chomsky assumes). In order to maintain the present solution, it must be demonstrated that Movement-to-COMP is not needed to account for the parasitic gap in (29). In what follows I show that although this gap is licensed in accordance with the environment specified in (28), Movement-to-COMP is not involved in the derivation of (29).

Analysis and Discussion. In this solution the D-structure underlying (29) is represented in (32):

(32) e is [$_{AP}$ hard [$_{S'}$ [$_{S}$ PRO to buy the book [$_{PP}$ without [$_{S'}$ [$_{S}$ PRO reading e]]]]]]

In order for the parasitic gap e to be licensed in accordance with (28), the book must move to a non-argument position (for instance, COMP), leaving a trace t which is locally A'-bound. It has already been shown, though, that if the book were moved to COMP and then on to matrix subject position, the variable t left behind in its original position would be A-bound by the book in violation of Binding Condition C (cf. the discussion (13)). Thus, sentence (29) cannot be derived from (32) by Movement-to-COMP.

COMP is not the only non-argument position to which the book can move, however. To see this, consider the following sentence which has undergone Heavy NP Shift (Engdahl 1983:12):

(33) John offended t by not recognizing e immediately, his favorite uncle from Cleveland.

In sentences like (33), the parasitic gap e is licensed by the trace t of the moved NP. Following Groos & Bok-Bennema (1985:78), I assume that in (33) NP is adjoined to matrix VP where it A'-binds t.

Heavy NP Shift can also occur in the S' complement of an adjective, as in (34):

(34) It is easy for John to offend t by not recognizing e immediately, his favorite uncle from Cleveland.

Now compare (34) with its abbreviated version in (35):

(35) It is easy for John to offend t by not recognizing e immediately, his uncle.

(35) is not as good as (34), stylistically anyway, because his uncle is not felt to be 'heavy enough'; yet, as Chomsky (1982:67-8) observes, the notion 'heaviness' cannot be expressed within core grammar. Indeed, within the framework of core grammar, Heavy NP Shift is assumed to be applicable to 'light' NP's (for instance, his uncle) as well as 'heavy' ones; and both (34) and (35) are syntactically well-formed.

Suppose that the book in (32) undergoes Heavy NP Shift producing the intermediate string shown in (36):

(36) e is $[_{AP}$ hard $[_{S'}$ $[_{S}$ PRO to $[_{VP}$ $[_{VP}$ buy t_i $[_{PP}$ without $[_{S'}$ $[_{S}$ PRO reading $e_i]]]]]$ the book$_i]]]]$

In (36) the book has been moved to the end of VP (of which buy is the head) and adjoined to VP, leaving a trace t in its original position. t is locally A'-bound by the book, and the parasitic gap e is licensed by t in accordance with (28).

Reanalysis can occur in three different ways in (36), depending on whether buy, reading, or the parasitic gap e is taken to be the final element. All three elements are 'accessible' to the adjective for reanalysis, as this notion is defined in (18). Thus, consider the three possible reanalyzed structures shown in (37):

(37) a. e is $[_{AP}$ $[_{A}$ hard to buy$]$ t_i $[_{PP}$ without $[_{S'}$ $[_{S}$ PRO reading $e_i]]]$ the book$_i]$

b. e is [$_{AP}$ [$_{A}$ hard to buy without reading] e_i the book$_i$]

c. e is [$_{AP}$ [$_{A}$ hard to buy without reading] the book$_i$]

Notice that in all three structures in (37), the book has become a derived complement of the complex adjective following the elimination of S' and its internal constituents--including both of the VP's which are labeled in (36). Note also that, as in Chomsky's analysis, empty categories (for instance, PRO) which are incorporated into the complex adjective are assumed to be erased in the process; thus, t does not appear in (37b-c), and e is absent in (37c).

Applying NP-movement to (37a-c) results in the S-structures represented in (38a-c) respectively:

(38) a. the book$_i$ is [$_{AP}$ [$_{A}$ hard to buy] t'$_i$ [$_{PP}$ without [$_{S'}$ [$_{S}$ PRO reading e_i]]]] t_i]

b. the book$_i$ is [$_{AP}$ [$_{A}$ hard to buy without reading] e_i t_i]

c. the book$_i$ is [$_{AP}$ [$_{A}$ hard to buy without reading] t_i]

(38a) is not a well formed S-structure, because NP-movement results in a chain (the book$_i$, t'$_i$, t_i) which has two θ-positions: both traces are complements of hard-to-buy in (38a) and thus occupy two θ-positions.[12] (38a) also violates the θ-criterion since hard-to-buy presumably has only one θ-role to assign. Similarly, in (38b), if the parasitic gap e_i is included in the chain (the book$_i$, e_i, t_i), then this chain has two θ-positions and is thus ill-formed. On the other hand, if e_i is not taken to be a part of this chain, then it cannot receive a θ-role because it is neither in a Case-marked position nor linked to such a position and is therefore not visible for θ-marking. By contrast, the chain (the book$_i$, t_i) in (38c) is well-formed. I therefore take (38c) to be the correct S-structure representation for the sentence in (29).

As in Chomsky's solution, I assume that both (38c) and the nonreanalyzed structure in (36) are available for interpretation at S-structure, the latter containing the licensed parasitic gap. Thus, this analysis provides a principled account of parasitic gaps in tough constructions; and it has the additional advantage of permitting the insertion of the tough subject in embedded object position at D-structure. The strongest argument for preferring this analysis is therefore the same one given in Section 5: unlike Chomsky's Movement-to-COMP analysis, this solution adequately accounts for Jones's counterexamples in (6-8). On these

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grounds alone, Chomsky's account of tough constructions must be rejected in favor of the alternative solution offered in this study.

7. Tough Movement in GB Theory

Hidden among the scores of notes in Lectures are Chomsky's reflections on the potential implications of earlier work for developing the correct theory of grammar:

> It is worth noting that as theories of grammar have become more restrictive over the years, thus enhancing explanatory depth in some domains, certain topics that had received a suggestive and sometimes illuminating analysis in terms of less constrained theories have in effect been abandoned ... But one should, I think, bear in mind the more interesting possibilities explored in earlier work ... with an eye toward the possibility of recapturing earlier explanatory options that may express genuine insights that have been lost (1981:316, fn 6).

I believe that one 'illuminating analysis' to which Chomsky might be referring is the so-called 'standard' approach to describing tough constructions in transformational grammar. Under this approach, first suggested in Chomsky (1964:61-5) and later formalized as a transformation in Rosenbaum (1967:107). sentence (40) is the result of raising the object of the embedded verb in (39) to the matrix subject position:

(39) It is tough for John to shave Bill.

(40) Bill is tough for John to shave.

Known as Object to Subject Raising--or, equivalently, Tough Movement--this rule provides an explanation for the fact that Bill in (40) is the understood object of shave.

While Object to Subject Raising is accepted in other models,[13] it is not allowed in GB theory because the NP-trace created in the process violates Binding Condition A (Lasnik & Uriagereka 1988:147). To illustrate, the structure shown in (41) is derived from (11) by Object to Subject Raising:

(41) $John_i$ is $[_{AP}$ easy $[_{S'}$ $[_S$ PRO to please $t_i]]]$

The trace of NP-movement, an anaphor, is subject to Condition A. Yet t_i in (41) is free in its governing category (the lower S).

Notice, though, that this problem does not arise in the present analysis, in which (11) undergoes reanalysis prior to NP-movement. Once NP-movement is applied, the resulting NP-trace in (20), repeated below, is bound (by John) in its governing category (S) as Condition A requires:

(20) $John_i$ is $[_{AP}$ $[_A$ easy to please] $t_i]$

I observed earlier that the well-formed S-structure in (20) is identical to the one derived in Chomsky's analysis. However, the solution proposed here, in which (20) is derived from (11) (rather than (2)), is made more appealing by its success in recapturing the spirit, if not the letter, of Chomsky's (1964) earlier insight concerning tough constructions. Like the Tough Movement rule, once held to be extremely well motivated, this analysis correctly ascribes to the tough subject the underlying status of direct object--and it does so once and for all in keeping with the principles of GB theory, including Binding Condition A. These favorable results enhance the credibility of the present analysis and of GB theory itself, and they point up the validity of Chomsky's suggestion that earlier linguistic insights cannot be ignored.

8. Conclusion

The present solution is essentially a GB version of the 'standard' Tough Movement analysis. Within the current framework, Tough Movement is assumed here to be a typical instance of NP-movement (Move-α), which is applied to the derived complement of a reanalyzed structure. The reanalysis rule itself is adopted from Chomsky's (1981) analysis. Also adopted here is Chomsky's assumption that the complement resulting from reanalysis is in a θ-position--as I have argued, just like the complement of a passive participle.

The main differences between Chomsky's analysis and this solution stem from a disagreement as to whether Movement-to-COMP is needed to account for wh-island effects and parasitic gaps in tough constructions. With respect to the former, it has been suggested that the intended final element of a complex adjective must be 'accessible' to the adjective for reanalysis, where 'accessibility' is defined in terms of the Subjacency Condition. This proposal utilizes the would not violate device which Chomsky introduces in his definition of Accessible SUBJECT in binding theory, in this case allowing Subjacency to be used as a measuring stick with no actual movement taking place within the substring on which reanalysis operates. If this solution is correct, then Movement-to-COMP is not needed to account for wh-island effects in the complex adjective of a tough construction. As to parasitic gaps, which are known to be licensed by wh-trace, it has been shown that the licensing trace can be produces without Movement-to-COMP, if the embedded object undergoes Heavy NP Shift, an option which core

grammar makes available. It is concluded, therefore, that parasitic gaps can no longer be used to justify the need for a Movement-to-COMP analysis of tough constructions.

To maintain his Movement-to-COMP analysis, Chomsky is forced to claim that the tough subject is inserted in matrix subject position at S-structure, a proposal which leads to a more powerful theory with the reintroduction of generalized transformations. However, if the alternative solution offered in this study is correct, then Chomsky's proposed measure is simply not needed in GB theory to account for tough phenomena. The implications of this analysis are therefore very much in keeping with Chomsky's own efforts to develop a maximally constrained theory of grammar.

NOTES

[1] I am indebted to Zeljko Boskovic, Ahmed Fakhri, Frank Medley, Johan Seynnaeve, and Stan Whitley for their helpful comments on an earlier draft of this paper.

[2] The θ-criterion is stated as follows: 'Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument' (Chomsky 1981:36).

[3] wh-movement is subject to the Subjacency Condition, which prohibits the movement of a constituent across more than one bounding node (S or NP). In Chomsky's analysis, the application of wh-movement in (3a-b) crosses two bounding nodes, hence the sentences are ungrammatical. (For a detailed discussion of the Subjacency Condition, see Chomsky 1977.)

[4] I limit the present discussion to Jones's main theoretical arguments against Chomsky's proposals which lead Jones to reject the entire Government-Binding framework as a viable theory of grammar. Jones also raises a number of objects to Chomsky's analysis on empirical grounds, arguing that there is no evidence to support Chomsky's claim that wh-movement is involved in tough constructions, apart from the fact that they appear to obey the wh-island conditions. I disagree with Jones on this point, which boils down to the familiar question of how much evidence is enough. Suffice it to say that the wh-like properties of tough constructions, for instance, those illustrated in (3), must be accounted for in some way. Chomsky's approach to doing this, while inadequate for the reasons discussed below, is certainly not empirically unjustified, contrary

to what Jones suggests.

[5] According to the Projection Principle, 'representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items' (Chomsky 1981:29). Chomsky (30-1) observes that the essentials of trace theory follow from the Projection Principle and therefore need not be stipulated independently.

[6] The example in (6b) appears in Lasnik & Uriagereka (1988:47) and is attributed to Kevin Kearney.

[7] Chomsky (1981:188) states the Binding Conditions as follows:

(A) An anaphor is bound in its governing category.

(B) A pronominal is free in its governing category.

(C) An R-expression is free.

[8] Levine (1984a, 1984b) presents several arguments against reanalysis rules, including the rule adopted here from Chomsky (1981). Levine's examples, many involving Right Node Raising constructions of the form

(i) John is difficult, and Marjorie (is) impossible, to please.

raise questions about the internal constituency of complex lexical items for which I have no immediate answer. However, Levine does not propose a solution to replace the reanalysis rules which he considers; and consequently his position that such rules should be abandoned in grammatical theory is, at best, tenuous. I assume, therefore, that reanalysis is still an available (albeit controversial) device within the current model; and I adopt Chomsky's reanalysis rule as a working hypothesis. If the present solution turns out to be correct, then it can be used to argue in favor of allowing such rules in the theory.

[9] The condition that A cannot be extended across more than one bounding node may be needed for Spanish, however. According to Montalbetti & Saito (1983: 192), Spanish does not allow the so-called unbounded tough construction. The authors give the example shown in (i) (cf. the grammatical sentence in (ii)):

(i) *Este libro es facil de decirle a los ninos de leer.
'This book is easy to tell the kids to read.'

(ii) Este libro es facil de leer.

'This book is easy to read.'

[10] Many of Chomsky's examples of parasitic gap constructions, including those in (26), are taken from Engdahl (1983).

[11] For further discussion of Chomsky's proposal, see Montalbetti & Saito (1983:192). The authors assume that tough constructions in Spanish (as well as English) have dual representations at S-structure.

[12] Chomsky (1986:93) notes that complements of a head always occupy θ-positions. Thus, given the requirement that a chain has at most one θ-position (Chomsky 1986:135), it follows that a chain cannot contain two complements of a head, the situation represented in (38a).

[13] In particular, recent work in relational grammar has focused on Object to Subject Raising (see, for instance, Gonzalez 1985, 1988).

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ENGLISH VERB-PARTICLE CONSTRUCTIONS: TWO TYPES, TWO STRUCTURES

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Abstract: This paper proposes that resultative verb-particle constructions (VPCs) have an underlyingly different structure from idiomatic VPCs; both structures differ from the Small Clause analysis of Kayne (1985) et al and the verb-particle complex analysis of Johnson (1991). Empirical support for the new proposal comes from anaphor deletion facts and coordination facts. The analysis also accounts for previously noted data involving VPCs.

1. Introduction

So-called verb-particle constructions (VPCs) in English have attracted a fair amount of attention in the literature. Many VPCs allow for a word order of either V-NP-Prt or V-Prt-NP. The forms in (1) and (2) demonstrate this:

(1)	a.	Robin sent the man away	Robin sent away the man
	b.	Kim let the dogs out	Kim let out the dogs
	c.	Pat knocked Terry down	Pat knocked down Terry
(2)	a.	Robin shut the dogs up	Robin shut up the dogs
	b.	Kim cleaned Terry up	Kim cleaned up Terry
	c.	Kim straightened Pat up	Kim straightened up Pat

In the standard analysis (Kayne (1985), Aarts (1989), etc.), the particle stands as an intransitive preposition (though we will use the term particle for expository ease); the forms in the left-hand columns in (1) and (2) reflect the underlying order of terms.[1] Kayne proposes a Small Clause analysis for such forms; so that the relevant portions of (1a) and (2a) have the underlying structure as shown respectively below (it matters not for present purposes whether the particle heads a PP or merely stands as a P°):

(3) a. [V' sent [SC the man [P away]]]
b. [V' shut [SC the dogs [P up]]]

However, notice that the forms of (1) and (2) have an important semantic distinction, which the literature has long noted. In each of the

examples in (1), the particle indicates a resultative state. For example, in (1a) the particle *away* indicates the man's state resulting from Robin's act of sending. Similarly, in (1b) *out* tells us the resulting state of the dogs, and in (1c) *down* informs us of Terry's state as a result of the act of knocking. Call, then, VPCs such as those in (1) resultative.

In contrast, the particles in (2) indicate no such resultative state. In (2a), *up* in no way represents the resulting condition of the dogs. Similarly, in (2b) and (2c), we do not find Terry *up* or Pat *up* in any meaningful sense. Call VPCs such as those in (2), then, idiomatic.[2]

The fact that resultative VPCs and idiomatic VPCs have differing semantics suggests that they have underlyingly different syntactic structures as well, and that the standard view errs in treating all VPCs equally. It turns out that the two types of VPCs also differ syntactically in two previously unnoticed ways; they differ with regards to the optionality of anaphor deletion, and with regards to the admissibility of particle coordination. We consider each of these syntactic phenomena in turn, and then offer a syntactic analysis for the two types of VPCs that successfully accounts for the differences.

2. VPCs and Anaphor Deletion

Both resultative and idiomatic VPCs allow for the possibility of an anaphor in direct object position:

(4) a. Robin sent herself away
b. Kim let himself out
c. Pat knocked herself out

(5) a. Robin shut herself up
b. Kim cleaned himself up
c. Terry straightened herself up

An important fact, though, seems to have escaped notice in the literature. Namely, deletion of the anaphor from the resultative VPCs of (4) makes them ungrammatical, while idiomatic VPCs freely permit the anaphor to delete:

(6) a. *Robin sent away
b. *Kim let out
c. *Pat knocked out

(7) a. Robin shut up
b. Kim cleaned up
c. Terry straightened up

The forms in (6) all clearly fail under the intended reading; if anything, however, the forms in (7) sound even more natural than do their counterparts in (5). The same fact holds in imperative constructions; the resultative VPCs in (8) resist anaphor-deletion while the idiomatic VPCs in (9) do not:

(8)	a.	(You) send yourself away!	*Send away!
	b.	Let yourself out!	*Let out!
	c.	Knock yourself out!	*Knock out!
(9)	a.	(You) shut yourself up!	Shut up!
	b.	Clean yourself up!	Clean up!
	c.	Straighten yourself up!	Straighten up!

The contrast between the forms (6) and (7), and that between (8) and (9), offers strong evidence that resultative and idiomatic VPCs have distinct structures. Had the two types an identical structure, nothing would predict the possible absence of an anaphor in idiomatic VPCs without expecting such deletability in resultative VPCs as well. Crucially, then, the object NP of each construction must occupy an underlyingly different position.

3. VPCs and Particle Coordination

The syntactic literature has long assumed that particles in VPCs may not coordinate. Gleitman (1965: 264) gives the following as evidence of this:

(10) a. I washed the floors up
b. I washed the floors down
c. *I washed the floors up and down

(10c) does in fact fail. Interestingly, the forms in (10a) and (10b) give examples of idiomatic rather than resultative VPCs. The floors do not result in an *up* or *down* state from the act of washing; rather, the strings *wash up* and *wash down* provide two idiomatic ways to say 'wash thoroughly'. The ungrammaticality of (10c) does not result from the redundancy of these idiomatic readings; other particle coordinations in idiomatic VPCs tend to sound even worse:

(11) *shut up* = 'make quiet'; *shut out* = 'allow no runs to'
a. Hideo Nomo shut those nasty Giants up
b. Hideo Nomo shut those nasty Giants out
c. *Hideo Nomo shut those nasty Giants [up and out]

(12) *put up* = 'provide lodging for'; *put out* = 'inconvenience'
a. Did the millionaire put the beggar up yesterday?
b. Did the millionaire put the beggar out yesterday?
c. *Did the millionaire put the beggar [up or out] yesterday?

Although both (11c) and (12c) conceivably make perfect sense, they fail on syntactic grounds. However, in contrast to the idiomatic VPCs above, resultative VPCs can have particles coordinate felicitously. Consider the following examples:

(13) a. I let the dogs in
b. I let the dogs out
c. I let the dogs [in and out]

(14) a. Pat knocked Terry down
b. Pat knocked Terry out
c. Pat knocked Terry [down and out]

The grammaticality of forms such as (13c) and (14c) seems to have escaped mention in the literature. It provides important further evidence, though, for a syntactic distinction between idiomatic and resultative VPCs. Again, if both types of VPCs had the same structure, we would expect the two types to have equal grammaticality status in forms with conjoined particles. Instead, whereas the syntactic relationship between the verb and the particle precludes particle coordination in idiomatic VPCs, the V-Prt relationship in resultative VPCs does not.

4. Two Structures

As noted earlier, Kayne (1985) assumes all VPCs to have the same structure of [V [NP Prt]], where the NP and particle together form a type of Small Clause. The evidence in Sections 2 and 3, however, indicates that such an assumption errs. Aarts (1989) agrees that resultative VPCs (*A-verb* VPCs in his terms) have this SC structure. He argues that idiomatic VPCs such as *shut Pat up*, on the other hand, (*B-verb* VPCs for him) have a ternary structure as shown below[3]:

(22) a. You shoot yourself!
b. *You shoot!

Similarly, in casual conversation subject NPs, which occupy [Spec, IP], can delete given enough established context, but object NPs never can. So (23), with its deleted subjects, sounds fine, while (24) crashes entirely (parentheses enclose deleted material):

(23) Robin went to Alaska last year. (She/He) saw lots of bears. (She/He) climbed a few mountains, too. (She/He) really enjoyed that trip, yes sir.

(24) Robin bought that book last year. She read *(it) in two days. She didn't like *(it) very much. She ended up returning *(it).

Given all this, it should come as no surprise that only idiomatic VPCs can undergo anaphor deletion. In (21) and (23), we see that specifier NPs can delete given enough context. Precisely this type of specifier NP-deletion occurs in the forms in (18), as the following shows (again, parentheses enclose deleted material):

(25) a. [VP Robin$_i$ [V' cleaned$_i$ [VP (herself$_i$) [V' t$_i$ up]]]]
b. [VP You$_i$ [V' shut$_i$ [VP (yourself$_i$) [V' t$_i$ up]]]

In each case above, the (potentially phonetically null, in the case of the imperative) coindexed subject NP provides sufficient context to allow deletion of the anaphor.[5] Since the anaphors occupy specifier positions, they may in fact delete under identity on a par with the deleted NPs in (21) and (23).

It also follows directly that resultative VPCs will forbid anaphor deletion, regardless of established context, since the anaphors occupy a complement position and complements do not delete in English:

(26) a. [VP Pat$_i$ [V'[V' let *(herself$_i$)] out]]]
b. [VP You$_i$ [V'[V' knock *(yourself$_i$)] out]]]

So the differing structures proposed successfully account for the anaphor deletion facts. Likewise, it accounts for the coordination phenomena noted earlier; namely that resultative VPCs permit coordinated particles while idiomatic VPCs do not. Recall the basic structure proposed for resultative VPCs:

(27) [V'[V' Verb NP] Particle]]

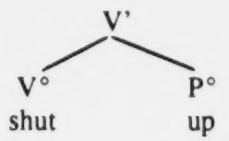
The verb and NP form a unit together; the external particle depicts the resulting state of the effect of the particular verb on the NP. It stands to reason that more than one resulting state can come about from a single action to a given object; for example, Pat can knock Terry both down and out (cold) with a single blow. Also, one can reverse the result of one's action; hence the grammaticality of strings such as *let the dogs in and out*. The basic idea of the structure in (27) can in fact apply to cases with coordinated particles. Assume along with, among others, Rothstein (1991), Munn (1992) and Zoerner (1995) that a coordinating conjunction &° heads its own phrase &P. A resultative VPC with coordinated particles thus appears as:

(28) [V'[V' Verb NP] [&P Particle and Particle]]]

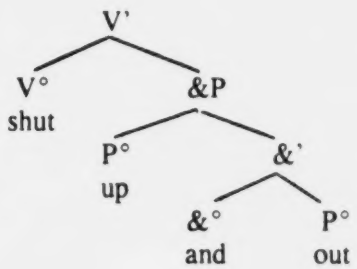
As long as both particles depict results of the verb's effect on the NP, the form will prove grammatical, just as desired.[6]

However, the differing structure of idiomatic VPCs accounts for the fact that these VPCs prohibit coordinated particles. Contrast for example, the relevant portion of an idiomatic VPC with a single particle against one with conjoined particles, assuming an &P-analysis (diagrams simplified somewhat):

(29) a.



b.

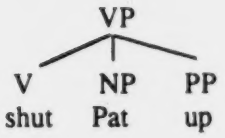


In (29a), the particle fills [Comp, V°]. In (29b), however, neither particle, strictly speaking, stands as a sister of the verb; rather, the entire coordination does. Grant now the following reasonable hypothesis:

(30) Only terms which underlyingly mutually c-command each other may create idiom chunks.

Since the particles of (29b) do not stand as V°-sisters, according to the hypothesis in (30) neither one will form an idiom chunk with a verb. Hence follows the illformedness of sentences such as **Hideo Nomo shut those nasty Giants up and out*; from its base-generated position the verb fails to form an idiom chunk with either particle (and the coordination of particles does not

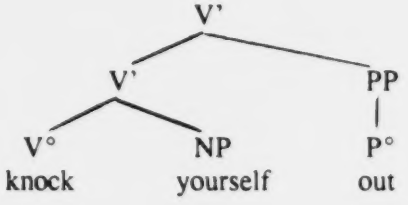
(15)



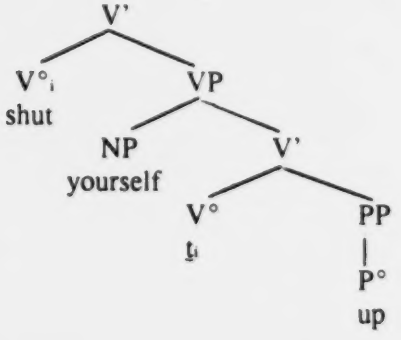
Standard theoretical assumptions, however (since Kayne (1984)), do not allow for such ternary branching. Although Aarts correctly divides resultative and idiomatic VPCs syntactically, the way in which he does so fails on theoretical grounds.

We propose that resultative and idiomatic VPCs have different structures in a way that respects the restriction to binary branching; it turns out that neither type has the Small Clause structure so commonly assumed. Specifically, we claim that resultative VPCs have a simple structure in which the intransitive particle stands external to a V-NP complex, while idiomatic VPCs actually consist of VP-shells, along the lines of Larson's (1988a) analysis. The relevant portion of the diagrams for the respective examples *knock yourself out* and *shut yourself up* follow:

(16) *Resultative VPC:*



(17) *Idiomatic VPC:*



In (16), the verb and direct object form a V' constituent. In (17), however, the verb in its original position forms a V' together with the particle. It then undergoes raising to the higher V° position within the shelled VP structure, so that it may assign Case to the NP *yourself* in the lower [Spec, VP] position.[4] Idiomatic VPCs, then, have essentially the same syntactic structure as do double-object constructions under a Larsonian

analysis.

The two different structures above offer a plausible means of correct interpretation of the corresponding semantic readings. Recall that in a form such as *knock NP out*, the particle *out* depicts the state that results to the NP (here, *yourself*) as a consequence of the act of knocking. In (16), the particle *out* c-commands the V+NP; in a sense, then, it has 'resultative scope' over the unit comprised of the verb and NP. Contrast this to the structure in (17). Here, the particle underlyingly occupies the lowest position in the structure. It does not have any sort of 'resultative scope' over a V+NP complex; rather, it forms an idiom chunk together with the verb under sisterhood. Such idiom formation does not occur in the resultative VPCs because the particle does not stand as a sister of the verb. So the two different structures proposed here seem compatible with the two types of semantic interpretations.

More importantly, the two structures offer an explanation for the syntactic differences noted earlier. Recall that idiomatic VPCs allow for anaphor deletion, whereas resultative ones do not:

(18)	a.	Robin cleaned herself up	Robin cleaned up
	b.	(You) shut yourself up!	Shut up!
(19)	a.	Pat let herself out	*Pat let out
	b.	(You) knock yourself out!	*Knock out!

It turns out that whether or not an anaphor can delete in a VPC depends upon its structural position. Notice that under the present analysis, a direct object in an idiomatic VPC occupies a [Spec, VP] position, while in a resultative VPC the direct object fills [Comp, V°]:

(20)	a.	[v' Verb$_i$ [VP DO [v' t$_i$ Prt]]]	Idiomatic
	b.	[v'[v' Verb DO] Prt]	Resultative

This specifier-complement distinction with regards to the direct object immediately accounts for the deletability facts. English allows deletion of NPs that occupy a specifier position more readily than it allows deletion of NP complements. For example, imperatives constructions allow deletion of the subject 'you', though of course a complement of an imperative cannot delete:

(21)	a.	You shoot the dog!
	b.	Shoot the dog!

create a meaningful part of an idiom chunk itself).

This approach implies that similar attempts to create coordinated idiom chunks will fail; the facts seem to bear this out. Consider the following:

(31) *throw to the wolves*: 'place in a difficult situation'; *throw for a loop*: 'confuse'
  a. Robin threw Kim to the wolves
  b. Robin threw Kim for a loop
  c. *Robin threw Kim [&P to the wolves and for a loop]

(32) *take a dive*: 'deliberately lose'; *take a breather*: 'rest'
  a. Robin took a dive yesterday
  b. Robin took a breather yesterday
  c. *Robin took [&P a dive and a breather] yesterday

Although the (c) forms above have conceivable, pragmatically felicitous readings, they both fail because the verb cannot form an idiom chunk with the relevant PPs or NPs. The analysis of idiomatic VPCs resulting from underlying sisterhood between the verb and the particle, then, has the virtue of predicting the inadmissibility of coordinating particles and unifying idiomatic VPCs with other idiomatic constructions.

5. Comparisons with Previous Analyses of VPCs

The present proposal of VPC structures has two main competitors; the Small Clause Analysis as in Kayne (1985) and the Verb-Particle complex analysis as in Johnson (1991). We consider each competitor in turn, and show that the present analysis holds empirical advantages over both.

Take first the common claim that all VPCs form Small Clauses. Under this idea, both a resultative VPC and an idiomatic one pattern on a par with the form in (33a) below:

(33) a. Robin considers [sc Kim smart]
  b. Robin knocked [sc Kim out]
  c. Robin shut [sc Kim up]

This analysis suggests that particles such as *out* and *in* form the same kind of predicates that *smart* does in (33a). In this section, we show that the present analysis can account for the same set of facts that motivates the SC analysis. We also show that the SC analysis fails empirically on other grounds. It cannot capture either the anaphor-deletion or the particle-

coordination data inspected previously; it also makes faulty predictions involving the constituency of the NP+Particle string.

The SC analysis does have some nice empirical consequences, but the present analysis can arrive at the same consequences without too much difficulty. For example, Aarts (1989: 280) notes that an NP+Particle sequence can occur in certain comparative structures:

(34) *The oven off* is less dangerous than *the oven on*.

Aarts takes this as evidence of constituency for the NP+Particle string; precisely the constituency an SC analysis provides. However, it seems just as likely that the above sentence has the underlying form of (35):

(35) The oven turned off is less dangerous than the oven turned on.

Since both occurrences of the verb 'turned' fall out as completely predictable under context (one does not, for example, normally *hammer* an oven off), they may delete. The grammaticality of (34), then, does not necessarily give independent evidence for the existence of an SC.

Aarts (1989: 282) also offers coordination data which purportedly supports an SC analysis. However, it turns out that an alternative can handle the data too:

(36) a. He switched the lights on and the radio off
b. He switched [&P [sc the lights on] and [sc the radio off]]
c. [He switched the lights on] and [(he switched) the radio off]]

Aarts gives (36a) as evidence for the SC-like constituency of the NP+Prt. (36b) shows the SC analysis; two SCs coordinate and the resulting &P stands as a sister to the V°. (36c) shows an alternative analysis; namely, the effects of Left Peripheral Deletion (see among others Sag (1976)), in which a subject and verb delete together under identity in a coordinate structure. There seems no a priori reason to prefer the depiction in (36b) over that in (36c); again, then, the argument in favor of the SC analysis loses force.

The previously noted anaphor-deletion facts, though, separate the two analyses. Small Clauses do not allow for deletion of their subjects, even under identity:

(37) a. Robin considers [sc *(herself) smart]
b. Kim found [sc *(himself) completely unprepared]

Therefore, idiomatic VPCs cannot have an SC structure, because they do in fact allow anaphor deletion: ***Robin shut (herself) up***, and so on. Note too that SC structures allow for coordination of the predicate:

(38) a. Robin considers [sc Kim [&P very smart and extremely able]]
b. Kim found [sc the party [&P boring and unenjoyable]]

Again, this shows that idiomatic VPCs do not form SCs; recall **Nomo shut the Giants up and out* and its ilk. Under an SC analysis of idiomatic VPCs, the particle stands as the predicate and should therefore undergo coordination as freely as do the predicates in (38). The fact that such particle-coordination fails, though, shows that the SC analysis unifying all types of VPCs fails.

In fact, the claim that the NP and Particle form a constituent together (namely, SC) runs into general problems. As Gueron (1990) notes; the NP+Particle string may not undergo pied-piping, topicalization or clefting. Consider the following:

(39) *[Which dogs out] did Robin let t?
(cf. Which dogs did Robin let out?)

(40) *[The important package away], we sent already
(cf. The important package, we sent (it) away yesterday

(41) *It was [Douglas out] that Holyfield knocked
(cf. It was Douglas that Holyfield knocked out)

The illformedness of the above three forms suggests strongly that an object NP and a particle do not form a constituent together. Note that all three examples above involve resultative VPCs; it appears, then, that an analysis of VPCs along the lines of a SC analysis depicts neither idiomatic nor resultative VPCs accurately.

Johnson (1991) gives a different analysis of VPCs, but one that runs into trouble as well. He proposes that all VPCs have an underlying structure such as the following:

(42) [v [v Verb-Particle] NP]

In his analysis, the verb and particle form a complex verb together; the object NP stands as a sister to this complex. This analysis shows a similarity to the present analysis of idiomatic VPCs, where the verb and particle too form a constituent (which we take as V' rather than V, however). Interestingly, Johnson considers idiomatic VPCs such as *look up the reference* and *dust off the counter* in his work almost exclusively; however, he does seem to claim that all VPCs have the structure as shown in (42). Here we show that this claim fails; we also show that the structure in (42) does not even suffice to account for the idiomatic VPC data adequately.

Some of Johnson's argumentation for the constituency of V+Prt actually gives evidence for the type of structural distinction between VPC types proposed here:

(43) a. The calling out of his name is heart-wrenching
b. The pointing out that we should leave was timely

Johnson argues that *call out* acts as a single lexical item, since it undergoes a morphological process (*-ing* nominalization) that applies only to verbs in the lexicon. Note, though, that Johnson gives idiomatic examples above; similar constructions with resultative VPCs sound much worse:

(44) a. ??The letting out of the dogs bothered me
b. ??The knocking out of Terry shocked the audience

So the attempt to give a unified analysis of VPCs with V+Prt as a constituent does not work; specifically, it fails with regards to resultative VPCs. It also has problems with idiomatic VPCs. Consider again Johnson's proposed structure for an idiomatic VPC such as *look up the reference*:

(45) [V'[V look up] [NP the reference]]

Here, the direct object stands as the complement of the verbal complex. Nothing, then, predicts the deletability of an anaphor in such a position; we have seen that complement NPs generally resist deletion. Therefore, we conclude that the present analysis, which separates resultative and idiomatic VPCs structurally, enjoys the empirical advantages of the Small Clause analysis and Johnsonian analysis without falling prey to any of the pitfalls.

6. VPCs and Word Order

Recall the data from (1) and (2), repeated below; both resultative and idiomatic VPCs generally allow for a free word order between the NP and the

particle:

(46)	a.	Robin sent the man away	Robin sent away the man
	b.	Kim let the dogs out	Kim let out the dogs
	c.	Pat knocked Terry down	Pat knocked down Terry
(47)	a.	Robin shut the dogs up	Robin shut up the dogs
	b.	Kim cleaned Terry up	Kim cleaned up Terry
	c.	Kim straightened Pat up	Kim straightened up Pat

Any theory of VPCs faces the challenge of accounting for the variable word order above. In addition, the theory must explain the familiar fact that pronouns may not surface to the right of the particle in either kind of VPC:

(48)	a.	Robin knocked him down	*Robin knocked down him
	b.	Kim cleaned it up	*Kim cleaned up it

This section first equates the word order variability in resultative VPCs to the phenomenon of Heavy NP Shift (HNPS; we shall appeal to the analysis in Aarts (1989). It then shows that the facts fall out in idiomatic VPC cases by assuming that the verb-particle sequence undergoes reanalysis (in a sense similar to the analysis in Larson (1988b).

Under the present analysis, the NP of a VPC always precedes the Particle underlyingly: V-NP-Prt. Conceivably, the variant word order of V-Prt-NP could result either from leftward movement of the particle, or from rightward movement of the NP. Theory-internal reasons, however, preclude the first possibility in resultative VPCs. Recall the proposed underlying structure of resultative VPCs:

(49) [v'[v' Verb NP] Particle]

From its underlying position, the particle c-commands the verb-NP complex. Note, then, that leftward movement of the particle to a position within that complex (presumably creating an adjunction to the V° position, since terms do not adjoin to complements) will result in an unbound trace, in violation of the Proper Binding Condition. Instead, to create the alternative word order, the NP in (49) must undergo rightward movement.[7]

Aarts (1989: 286) gives an explicit example of the rightward-movement analysis. He offers a condition upon rightward movement which correctly captures the relevant facts of VPCs. He writes:

(50) A maximal projection A may appear in an adjoined position after rightward movement across a maximal projection B only if A is more heavily weighted than B.
Weightings: heavy XP 2; regular XP 1; light XP 0

For Aarts, a heavy XP contains either a clause or a PP. Light XPs, on the other hand, contain only a head; pronouns, then, as well as lone particles fall under this rubric. All other XPs have a regular weighting of 1. Let us see Aarts' idea in action in a typical Heavy NP-Shift case:

(51) a. Robin read t_i yesterday [every book Kim ever wrote]$_i$
b. *Robin read t_i yesterday [books]$_i$

In the (a) form above, the extracted NP includes a clause and therefore has a weighting of 2. Since it outweighs the intervening AP 'yesterday' (which has a 1 weighting), the movement obeys the condition in (50) and the form goes through as good. In the (b) form above, though, the extracted NP 'books' counts as merely a regular XP with a weighting of 1. It therefore does not outweigh the AP and may not cross over it to the right. Aarts' condition therefore applies nicely to account for HNPS facts.

It also applies directly to VPCs. Consider:

(52) Robin knocked t_i [PP out] Kim$_i$

Here, the NP 'Kim' has a weighting of 1. The bracketed PP, however, consists of a bare particle only, and therefore has a weighting of 0. Since the moved element outweighs the intervening phrase, the rightward movement proves grammatical.

As Aarts notes, the analysis correctly predicts the inadmissability of extracting a pronoun. Consider:

(53) *Robin knocked t_i [PP out] him$_i$

Here, the moved phrase 'him' has a zero weighting. It does not outweigh the intervening PP, and therefore the movement fails. This analysis has a further benefit that Aarts does not consider. Recall the previous assumption that a coordinating conjunction heads its own phrase &P. A coordination of particles therefore appears as:

(54) [&P Particle [&' and Particle]]

The above depiction has an important consequence: a coordination of particles necessarily has a heavier weight than a lone particle does. The &P above has more than a bare head; rather, it has a specifier and complement as well, and therefore counts as a regular XP in Aarts' terms, with a weighting of 1. This consequence has immediate empirically desirable consequences. The previously unnoticed fact that coordinated particles must stand outside of the Verb-NP complex falls out directly under the analysis:

(55) a. Robin knocked Kim [&P down and out]
b. *Robin knocked t_i [&P down and out] Kim$_i$

The (a) form above shows the underlying word order; the (b) form shows rightward movement of the NP. Both the NP 'Kim' and the &P have weightings of 1; since the former does not outweigh the latter, the rightward movement fails. Note, though, that rightward movement of a heavy NP, which has a weighting of 2, sounds much better:

(56) Robin knocked t_i [&P down and out] [every pathetic stumblebum who dared enter the ring that night]$_i$

It seems that all of the possibilities of variant word order in resultative VPCs, then, fall out under a more general analysis of rightward movement.

Idiomatic VPCs also allow for variant word order; as noted, we find forms such as *Robin shut up the dogs* as well as *Robin shut the dogs up*. Under the present analysis, the latter reflects the underlying structure:

(57) [VP Robin [V' $\underline{e}$ [VP the dogs [V' shut up]]]]

We assume the VP-internal Subject Hypothesis; the subject NP 'Robin' occupies the [Spec, VP] position of the higher VP-shell. Since this NP needs Case, the verb raises to the underlyingly empty V°-slot as shown below:

(58) [VP Robin [V' shut$_i$ [VP the dogs [V' t_i up]]]]

From its new position, the verb assigns Case to the subject NP, as well as to the NP 'the dogs' in the lower [Spec, VP]; this Case-motivated movement brings about the standard V-NP-Prt word order.

Arriving at the variant word order of V-Prt-NP relies upon accepting a premise in Larson (1988b) (essentially the one that Johnson (1991) adopts): V'-constituents that constitute idiom chunks optionally may undergo reanalysis as V°s. Since a V' string such as 'shut up' in fact makes up an idiom chunk,

the grammar may recognize it as a V°. Therefore, the entire idiom chunk may undergo movement as does the lone verb in (58):

(59) a. [VP Robin [V' e [VP the dogs [V° shut up]]]]
b. [VP Robin [V' [V° shut up]$_i$ [VP the dogs t_i]]]]

The (a) diagram shows the reanalysis into a V°; (b) illustrates movement of this complex V° to the higher V°-slot. This movement, as before, has as its motivation the Case requirements of the NPs in the two [Spec, VP] positions. So although both resultative and idiomatic VPCs have variant word order, the variations come about through different means; idiomatic VPCs show reanalysis rather than rightward movement.

One question remains open, however; namely, why idiomatic VPCs do not allow the word order V-Prt-Pronoun. Recall forms such as:

(60) a. *Robin shut up him
b. *Robin cleaned up her

When the verb and particle undergo reanalysis, they may not raise over a pronoun. Something, then, precludes the following:

(61) *[VP Robin [V' [V° shut up]$_i$ [VP him t_i]]]]

Since the above involves leftward rather than rightward movement, we may not appeal to Aarts' condition on the weighting of moved constituents. We know that a reanalyzed V° can assign Case to a pronoun in a higher [Spec, VP]; note for example that in (59b) replacing the subject NP 'Robin' with the pronoun 'she' does not affect matters. The ungrammaticality of (61), then, must result from the failure of the reanalyzed verb to assign Case to the pronoun in the lower [Spec, VP]. For now we merely posit: object pronouns may not receive Case from a complex verb. Note that in English, pronouns but not other NPs (with the exception of *whom*) show overt Case. It therefore seems plausible to claim that manifestation of such overt Case on a pronoun requires assignment from a 'pure' V°; since other NPs show no overt Case, they need not care whether a pure V° or a complex one performs the Case-assignment. Though this account indeed remains stipulative, perhaps a better understanding of pronouns and Case will enable it to follow from prior principles.

7. Conclusion

We have demonstrated the necessity to show a structural distinction

between resultative VPCs and idiomatic ones; the empirical facts of anaphor-deletion and coordinated particles motivate this distinction. The two types of VPCs have the following underlying structures:

(62) a. [v'[v' Verb NP] Particle] *Resultative*
b. [v' e [vP NP [v' Verb Particle]]] *Idiomatic*

The above structures make the correct semantic and syntactic distinction between the two VPC types, and enjoy empirical advantages over both the Small Clause analysis and the V-Prt-NP analysis. We have examined only English VPCs here; it should prove interesting to extend this analysis to other languages with VPCs as well (e.g. German, Norwegian, Dutch, etc.). The present analysis has gotten off to a promising start, and natural extensions of it to other languages should bear fruit as well.

NOTES

My thanks go to Terri Griffith, Yuji Takano and an anonymous reviewer for helpful discussion on this work.

[1] Johnson (1991) argues that the verb and the particle together form a complex verb; he proposes the following structure for all VPCs:

i. [v'[v Verb-Particle] NP]

We return to an assessment of this analysis in Section 5; for now we consider the Small Clause analysis only.

[2] As an anonymous reviewer correctly notes, the resultative/idiomatic distinction blurs in some VPCs. For example, *knock out* has two possible interpretations: 1) to knock someone to make that person out (cold), and 2) to amaze. In this work we consider the resultative reading of (1) only. Similarly, *straighten up* can mean either: 1) align or 2) fix. Here we work with only the second, idiomatic reading. The ambiguity of some VPCs poses a problem for any analysis; one which we leave unresolved here. For now we simply appeal to the intuitive distinction between the idiomatic/resultative readings, and hope that a more precise definition will follow.

[3] Aarts' motivation for separating resultative and idiomatic VPCs differs from the motivation regarding anaphors and particle-coordination discussed here. We return to Aarts' analysis in Section 5.

[4] From its raised position, the verb will also assign appropriate Case to the subject NP in the higher [Spec, VP] position (not shown in the diagram).

[5] As noted, forms of this type sound most natural when the anaphor does delete. This may result from a general discourse condition along the lines of "avoid prolixity;" we may remain neutral on this issue, noting in any event that the present analysis succeeds in predicting the admissibility of such deletion.

[6] An anonymous reviewer correctly points out that *let the dogs in and out* has a distributed reading, one in which for example one dog comes in while another goes out (perhaps from a single act of opening a door). The present analysis has no means of accounting for this interesting fact. To the best of our knowledge, other analyses fare no better.

[7] This paper works under the assumption that Kayne's (1994) theory-driven claims against the existence of rightward movement prove too strong; we hold that empirical matters require that we maintain the possibility of rightward movement. Justification of such a position, however, would lead too far afield here.

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Part II: Studies in Native American Languages

CHEROKEE STORIES OF THE SUPERNATURAL

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Abstract: Stories of personal experiences of supernatural events are a highly-valued form of verbal art for Cherokee speakers today. Both the people who tell them and those who listen regard such stories as entertaining and instructional. The stories reflect some of the tensions that exist between traditional Cherokee culture and modern American social life. They also provide linguists with valuable examples of "good Cherokee" as it is used by speakers.

1. Introduction

Stories of personal experiences with the supernatural constitute an important verbal art form for contemporary speakers of the Cherokee language.[1] These stories are distinguished from other stories and other kinds of verbal art by their subject matter, their style, and the circumstances surrounding their telling.

This essay is intended as a contribution to the study of oral literary traditions, specifically the traditions of the Cherokees. It is a response to calls from many scholars, including Bright (1984), for studies of oral narratives and literary traditions in American Indian societies; specific studies of this sort are prerequisite to the broader understanding of the full spectrum of oral and written literary traditions across the globe.

The oral narratives that are discussed here belong to a rich tradition of verbal artistry in the Cherokee language among culturally conservative Cherokees. This tradition survives to this day and includes both written and oral material. Although the Cherokees use writing for both sacred and secular purposes, written literature in Cherokee is associated with the sacred. The New Testament and part of the Old Testament are widely available in Cherokee. There are also numerous collections of medical formulas and prayers, some still kept private and secret. Many of these prayers are highly formal in structure. They are discussed at length in works by Mooney (1891, 1932) and Kilpatrick and Kilpatrick (1965, 1967, 1970).

The strictly oral tradition of the Cherokees includes among other things narratives of various kinds. Studies of this oral tradition have tended to focus

on traditional myths and legends, with an emphasis on content rather than form that has followed naturally from scholars' interest in gleaning information about early history and culture from the stories and comparing the themes and plots of narratives across cultures. Traditional oral narratives appear in the original Cherokee in Speck 1926, Olbrechts 1931, and King 1975.[2] In addition, several traditional stories were edited by Laura King and published in the Journal of Cherokee Studies in the 1970s. However, the largest and best-known collection of traditional narratives, Mooney 1900, is entirely in English. Two other important collections of Cherokee stories in English translation were prepared by Kilpatrick and Kilpatrick (1964, 1966): these include a range of narratives and anecdotes under the rubrics of folklore and folktales. One study that does not focus solely on content is Singleton's (1979) pilot study of Cherokee narrative structure, which applies Robert Longacre's theories to a small corpus of Cherokee-language narratives.

My research on Cherokee narratives and literary traditions draws on the literature discussed above and on field work conducted from 1984 through 1994 with Cherokee speakers in California and Oklahoma. Among the Cherokee-language narrative texts that I have recorded are seven well-told stories of personal experiences with the supernatural.

2. Characteristics of Stories of the Supernatural

In this essay I argue that there is an important Cherokee cultural category of stories of personal experience with the supernatural, and that some of the stories, which I discuss here, should be recognized as examples of verbal art. In this section I examine these stories in terms of their content and the contexts in which they are told and in terms of their relationships to other kinds of narratives, and I discuss their literary value.

Stories of Amazing Events. The kind of stories I describe here have to do with happenings that are u:sgwanikdi 'amazing'.[3] In these stories, people describe their involvement with events that defy ordinary expectations, and that cannot be explained in terms of the usual activities of human beings or animals. Such a story typically evokes some element of the spirit world: a prototypical story of something that is u:sgwanikdi is a story about a vision, a strange dream, or an experience with traditional medicine, or with the Little People or some other spirit creature (see Kilpatrick and Kilpatrick 1964, Mooney 1900). One story that I recorded, called by the narrator, "When the Ghost Drove Up In the Car", provides a good example. The story tells of a car that drove up to a house in the country one night, with its lights on. The people who were in the house saw the car, as did the people next door. The car doors slammed, but no one

ever came to the door of either house, and the next time anyone looked out, the car was gone without having made any noise. The next morning, there were no tire tracks to be found.

These stories are typically told to small audiences, often in the context of several people taking turns telling stories of a similar nature. In addition to describing their experiences, people may also tell stories about what they have been told about the supernatural--in one story that I recorded, "The Little People", a woman describes the advice she got from neighbors about placating the Little People after she had moved a mobile home onto a plot of land.[4]

Occasions for telling these kinds of stories frequently arise or are created, and it is very easy to elicit these stories in English or in Cherokee. This may be because Cherokees perceive these stories as typical of the stories that they tell, and because the stories are regarded as both instructional and entertaining.

The stories are instructional in that they help to explain what it means to be a Cherokee. These stories describe events that have happened to Cherokee people, and although the events are u:sgwanikdi, they are representative of the kinds of events that Cherokees may expect other Cherokees to experience. In addition, the stories include vivid expressions of conflicts between the ways of conservative Cherokees and the ways of contemporary American life. For example, the story of the mysterious car involves the highly unusual event of a car appearing at night in a rural Cherokee community in about 1940. The events occur on a Saturday night when the men of the house are at church and the women have stayed home, "too lazy to go to the service", as the narrator explained to me. "The Little People" involves a young Cherokee couple who have set up a mobile home on a lot in a conservative community where they plan to build a house. Another story told by a traditional Cherokee doctor or medicine man describes a dream he had as a teenager. At the beginning of the story, his father comes home drunk, and gives the boy some whisky to drink to help cure him of a cold. Later the boy falls asleep and dreams that he is lying on what seems to be an operating table, with people moving human bones across his body. They move the bones over to his right side, and he wakes up in the morning with a terrible pain on his right side.

Cherokee audiences find the stories entertaining, but not particularly funny or frightening. Their value as entertainment arises from the unusual events that are described, from the verbal skill of the teller who evokes an atmosphere and creates suspense, and from the pleasure of participating in an exchange of tales. The stories need not be novel to be appreciated; people are known for their stories, and particular favorites may be requested.

Traditional narratives may be said to have narrators but not authors. In contrast, the stories of personal experience that I discuss here do have authors--the people who experienced the events and have chosen to tell about them; and in a sense the stories are the property of their authors. People seem to feel that they are not entitled to repeat other people's stories. People will tell about what has happened to others in a highly abbreviated fashion, but no matter how well they know the stories or the other tellers, and even with liberal use of markers of hearsay, they will not tell those events as stories, with detailed descriptions and characterizations, dialogue, and commentary. When I asked one speaker whether I could record her telling a particular story, she replied that I could, because it was her story. Other people had experienced those particular events with her, and they too could tell the story if they wanted, but in their own ways.

Cherokee speakers are very concerned with other people's judgments of their knowledge and use of the language and their status as storytellers. Certain people have reputations as good story tellers and good speakers, or reputations for telling particular good stories. Stories of amazing events, like the ones I describe here, provide extended examples of what Cherokee speakers consider good contemporary usage of their language.[5]

The best of these stories are told in what amount to performances: they have been carefully crafted in telling after telling as speakers have worked to achieve particular rhetorical effects. These highly polished stories are told much the same way from one occasion to the next, whether in Cherokee or in English translation. False starts and hesitations are much less common in these stories than in ordinary conversation or in the anecdotes that are told in the course of ordinary conversation. Interruptions and comments are out of place during the telling of a story, and after a story is finished, speakers have little patience for listeners who ask questions about details of the events or characters that have been described.

Characterizing the Stories. Among the different kinds of Cherokee narratives that I have studied are traditional stories and myths, and stories of personal experience including reminiscences, humorous anecdotes, and accounts of recent events, as well as experiences with the supernatural.

All well-told Cherokee narratives have certain things in common, some of which are illustrated in the example passages given below. If stories involve more than one character, they include a good deal of direct quotation. Certain words and clitics are used to mark topics, contrast, emphasis, and boundaries between episodes. A range of different syntactic constructions is used, and the order of sentence constituents is manipulated to reflect the importance of

particular pieces of information (see Scancarelli 1987:172-98). Also, the complex derivational morphology of Cherokee is exploited by good story-tellers, many of whom have reputations for having large vocabularies and being able to express complex ideas in single words.

Well-told stories of amazing events are carefully structured, with abundant and effective use of repetition, doubling, and parallel structures of various sorts. In "The Little People", two elderly neighbors come to tell the narrator that she and her husband have disturbed the Little People by setting up a mobile home. An excerpt from this story appears as (1).[6]

(1) [1]Ge:sd o:sd yu:ye:lv:se, adeloho:hisd ge:hv gu:sd u:dehtohdi:sga.

[2]"He:sdhnv yitsgwango:se:sd u:wakdi:di:sv, gu:sd ihadeloho:sv:hnv. [3]Yv:w ju:nsdihen u:ninv:hnv ihna aye:hl tsdi:di:g di:sde:nv:sv:'i," o:gino:he:lv:he.

[4]"Nu:sdvhn a:ne:ha, du:nindihwsido:lv go:hi:d sgihnv de:hi:sdu:hvsi. [5]Hla yu:sgwanikde:sd gu:sd i:hade:loho:sv:hnv:'i," a:'wo:he:lvhen sginana u:tvhisd.

[6]Hlasgu ta'lu jusv:hihd yige:se no:le na' Galo:nvsg ju:luhjvsgwu--uhlo:y na:giwe:he:li:hlv.

[7]"He:shnv jihisgwango:si. [8]Hla yu:da:lu:l, tade:lohosv:hn, tata:'vnvhn. [9]Ase:hn sguhe:n ge:he:sdi [10]Sudale:'eyo yinjadv:ne:l, hla' dli:ya yidage:jadehtohtan.

[11]"Sdi:yu gu:sd u:ti'ido:lv ga:du'iyig, hyitlahvsg ilvhdlv, sgina ya:nahlsde:hldohd. [12]Gv:waktu nu:nahlsdahne:hv:n yig, hla' gu:sd yidage:jadehtohtan. [13]V:sgu niga'e:sd u:nahlsdahyd a:nihwahti:he:sdi," a:'wo:he:lv:hnv.

[1]His mind was uneasy, it was clear that he was troubled.

[2]"Don't be surprised in the days to come, if you should see or hear things. [3]The Little People have a trail there, right in the middle of where you've placed your house," he said to us.

[4]"They live a certain way, you've cut off the place where they've crossed back and forth for a long time. [5]It shouldn't be a surprise for you to see and hear things," the old man said to me.

[6]Not even two nights went by and then Emma came too--she came to say the same thing to me.

[7]"Don't be surprised. [8]Without fail, you'll notice things, you'll hear things. [9]But it will only be them. [10]But if you will do just one thing, they won't bother you very much.

[11]"If you set out somewhere a little bit of leftovers, like bread, that would be of help to them. [12]As long as they don't

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have to do without, they won't bother you at all. [13]As long as they can find something to eat," she said to me.

First, an old man comes to give them a warning. He is described as troubled, twice (see sentence 1). His warning, reported as direct speech, is chiastic in structure: he tells them to expect odd happenings, he tells them about the Little People, and then he repeats himself, telling about the Little People and telling the couple to expect odd things (see sentences 2 through 5). Then comes a repetition of the warning from the man's wife (see sentences 7 through 13). Her speech itself contains several kinds of repetition. She warns them to expect odd things, first speaking more generally of "noticing" things and then more specifically of "hearing" things (sentence 8). Unlike her husband, she offers a suggestion for avoiding trouble (see sentences 10 through 13), which includes several repetitive elements. In this example, and generally in the stories I have recorded, the second repetition usually expands upon the information given earlier.

Some examples of repetition in stories of the supernatural involve the Cherokee "magic numbers" four and seven, which can come into play in long narratives. One speaker, a practitioner of traditional Cherokee medicine, told about a strange experience he had as a young man. He was doing agricultural labor, working far from his home. He and a friend went to buy some liquor from a bootlegger, and on the way back to town they got tired and went to sleep by the side of the road. An excerpt from the story appears as (2).

(2) [1]No:gwuhn a:se sana:le no:gw di:dl ge:se. [2]Jida:gahno ana:yv:hlsgv, a:kwtvga:nv.

[3]No:gwule gohu:sd no:gw, jidodi:tltade:go jine:ji gadu di:dl nv:wasdv nagwalisda:ne:hv.

[4]Kohi:yu no:gw, sdi:kid da:gwakahnan. [5]Go:sdihno, a:ginegudi:sgv, eli:sdi. [6]Gi:hli jige:so iyu:sd a:danhte:hdi ge:sv. [7]No:gwuhno ji:sga'gwu. [8]Ido:hno to:' nadv:neho hle:g.

[9]Nolehn si:gwu tohi'ahlsdade:go e:li:sdi, jineji'en di:dl. [10]Kohi:yu no:gwu di:sgwi:nv gvnhdi deji:sgwadv:niho. [11]"Hisu:ligo'i! [12]Hada'nv:na!" ji:yose:ho. [13]Ido:hno to:' nadv:neho.

[14]Wakto:gw, o:hni no:gw, u:si:ne:n, no:gw o:sda a:gwahltlodv:nv iyu:sd, o:sd agwanse:hnv. [15]"Ta'line dodi'alistade:sa o:sda daji:niyv:hi a: ilvtlv widajihda'e:si," agwe:li:sv.

[16]Ido:hno, dojulistadi:n, o:sdahno jiniyv:ha--a:se hla yvgagada nijiyvne:lv jini:yvhv ase:hno jiniyv:hv. [17]No:gwuhno o:sda a:gwahlsdahyvtan--no:gwu nidvsalidanv iyu:sdi

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nagwadv:nelv, ilvtlv wijida'inv:sv [18]"'Hisuligo'i!' jigv:yosi," ji:yose:lv.

[19]Udo:yu vsgwu u:suligo:jvhe:n.

[1]Then it must have been morning. [2]I heard the chickens crowing.

[3]And then it seemed to me there was something, that was jumping on top of my chest.

[4]After a while, I kind of opened my eyes a little bit and looked. [5]There was something, it was picking on me, I thought. [6]It seemed like it was a dog. [7]And then I scolded him. [8]And sure enough he stopped for a while.

[9]And then it seemed like he jumped up again, toward my chest. [10]After a while I began to hit him in the side with my fist. [11]"Quit it! [12]Get away!" I kept telling him. [13]And sure enough he stopped for a while.

[14]And then he kept on, and then, when he backed up again, then I lay down good, I lay down on my back. [15]"The next time he jumps on me I'm going to get a good hold on him and I'm going to throw him off somewhere," I thought.

[16]And sure enough, when he jumped up, I caught him good--and I can't say just how I got a grip on him to catch him but I did catch him. [17]And then I braced myself real good--and I raised up like, and I threw him off somewhere. [18]"'Quit it!' I told you," I said to him.

[19]And he sure stopped then.

The narrator was awakened at dawn by something like a dog that was jumping on him. This is the central, climactic event of the story. The dog-like creature jumps up on the narrator four times (sentences 3, 9, 14, and 16), and is subdued only after the fourth jump (sentences 16 through 19). At the end of the story we learn that eventually the narrator consulted a fortune teller who told him that his overcoming the attack meant that he would be successful in using traditional Cherokee medicine.

Stories of amazing events are distinguished from other stories by characteristics that are associated with their subject matter. To a much greater extent than other stories, these stories leave the interpretation or conclusion up to the listener. They often include explicit statements of uncertainty from the speaker, who may admit to not knowing how to interpret the unusual events or what caused them. For example, in a later passage in the story cited in (2), we learn that the narrator thought long and hard about his strange experience before consulting the fortune teller.

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In telling "When the Ghost Drove Up In the Car", the speaker closes the story by musing over the things she saw and heard (part of the conclusion of the story appears as (3)).

(3) [1]Doyu se:g nu:hlsdanv--hlahn ogv:s yo:gi:gohe [2]Adamobi:lihn ani:sohen aniyo:ne:g, sgwu u:nigo:hv.
[3]Hla do:yu yo:jvtsgo:nsg udo:yu o:gigo:hv--ase:hn ahna wu:lo:sv, hla ilv:hiyu yo:gv:nt. [4]Sgigwu:hn nike:sv, u:sgwanikd nu:hlsdanv.
[5]Kohihn jig gado:sgin geli:sgo, lv:hiyu kv:hn nulsdanv:n jige:hv adamobi:l, gagwuke ge:se, e:hlawe:k u:ni:hv:sen, gado:hvn ahna indu:lasgvn ge:hv adamobi:l.
[6]Sgi a:kse:giyoche:ho--niga:da ogi:segiyo:che:hv, ase:hn wunvkta:hno hla ya:ne:ho--e:hlogi oginv:sv o:sde, v:sg ogini:go:hv, si o:sdihnohe:sgo yv:da:hv.
[7]Sihn ogindu:li:sgo ogindelo'ohisdi ahna na wu:losv.
[8]"Hald gado u:sdihn ge:he, ga:gwusgin ge:he, sgiligwuke ge:se," o:sdadi:sgo.

[1]A very strange thing happened--and we [the speaker, her aunt, and her grandmother] were not the only ones to see it. [2]Those others, white people, saw the car too.
[3]We really didn't lie, we really saw it--and where it went, we never knew. [4]And that was an amazing thing to happen.
[5]Even now I wonder, why the car was never seen, and who it was, who moved it without us hearing it, and why there were no car tracks.
[6]That puzzles me--it puzzled all of us, but the rest of them are dead--my aunt and I are the only ones living that saw it, and sometimes we still talk about it.
[7]And we still would like to find out where it went. [8]"I wonder what it was, or who it was, or was it just a ghost," we say.

This passage includes several interesting examples of repetition. The second paragraph (sentences 3 and 4) is an inversion of the first (sentences 1 and 2): the first paragraph begins with an assertion that something strange had happened, and ends with an attestation to the truth of the strange story; the second paragraph begins with an attestation to the truth of the story and ends with an assertion that something strange had occurred. This excerpt also illustrates parallelism in lexis and syntax. For example, the verb "puzzle" is repeated in sentence 6, and the series of questions in sentence 8 not shows

parallel structure within the sentence and also recalls the wording and structure of sentence 5.

In stories about supernatural events characters and settings are typically described in much greater detail than in other stories. For example, in the first two sentences of the story in (2), the story teller not only tells us that it was morning, but tells us how he knows that. Details about time, place, and characters are often absent in traditional narratives because the details are either irrelevant, or unknown, or so well-known that they can be omitted. But stories of amazing events do not draw on stock characters and settings to the same extent as myths or anecdotes. Details are more important in these personal experience stories than in others at least in part because of the subject matter: the details emphasize the contrast between the ordinary and amazing events in the story, and they establish the truth of the story and the credibility of the narrator. Careful description of places suggests that the narrator is a good observer; if places are familiar to the listeners, the suspense of the story is compounded by the combination of unusual events with commonplace surroundings. Facts about other characters in the stories are especially important when those people are witnesses to the amazing events that are described. In the story in (2), we learn later that the narrator's companion is aware of the attack from the dog--this establishes that the attack was not simply a dream. The companion is introduced early in the story, and details are provided about the friends' conversations and activities that evening. In "When the Ghost Drove Up In the Car", the narrator's aunt and grandmother, and the couple living next door are witnesses to the car's having been there.

Most traditional stories and most short anecdotes focus on conflicts between two characters or a fairly straightforward sequence of events. Those stories tend to emphasize events and circumstances rather than mental states. In contrast, an important focus of amazing stories is often an internal conflict within the mind of the speaker, or speculation as to the mental state of a character. The examples above include numerous references to mental states. This is especially evident in (3), where the entire passage consists of the story teller's reflections. Mental states also figure prominently in (1) as the story teller describes the old man's state of mind (sentence 1), and both the old man and his wife tell the young couple not to be "surprised" by things that occur (sentences 2, 5, and 7). In the story in (2), the story teller describes his thoughts as well as his actions when the dog attacks him (sentences 3, 5, 6, and 15).

With any story of personal experience, as opposed to a traditional story or myth, the story teller cannot appeal to authority that justifies telling the tale in a particular way, or indeed telling the story at all. It is not possible for

speakers to say, for example, "This is how they told it long ago", or to tell the story as if assuming that the events in the story are inherently interesting to the audience. And unlike humorous anecdotes, stories of amazing events do not justify themselves by their clear amusement value. Rather, these stories' worth in terms of form and content must be clearly established, implicitly or explicitly, by the speaker. As a result, the narratives exhibit an exceptionally large number and wide range of evaluative devices (see Labov 1972). Among these are the use of tone of voice, markers of emphasis, repetitions, relative clauses, negatives, rhetorical questions, exclamations, direct quotations, expressions of uncertainty, and references to mental states, some of which are evident in the passages quoted above.

Perhaps the most prominent of these are repetition and references to mental states, discussed above. Also noteworthy is the use of markers of negation (typically with a form of hla 'not') and uncertainty (such as a:se 'perhaps, maybe' or indefinite pronouns), which highlight the unusual, unexpected nature of the events being described. In the excerpt in (1), explicit negative morphology occurs in sentences 1, 2, 5, 6, 7, 8, 10, and 12. In the excerpt in (2), full negation occurs only in sentence 16, but expressions of uncertainty occur in sentences 3, 5, 6, and 9. In the excerpt in (3), negation or uncertainty or both are expressed in sentences 1, 3, 5, and 8.

The Literary Character of Cherokee Stories of Supernatural Events. Bright (1984:133) suggests that "literature" refers to the "discourses or texts which, within any society, are considered worthy of dissemination, transmission, and preservation in essentially constant form." If we define "society" in such a way as to include a community or other segment of a larger society, then some Cherokee stories of personal experience with the supernatural must be classified as literary, for they are requested, told and retold in the same way on many occasions over periods of many years.

Labov (1972:396) has this to say in speaking of Black English Vernacular stories of personal experiences with fights:

> when they are quoted in the exact words of the speaker, they will command the total attention of an audience in a remarkable way, creating a deep and attentive silence that is never found in academic or political discussion. The reaction of listeners to these narratives seems to demonstrate that the most highly evaluated form of language is that which translates our personal experience into dramatic form.

Not surprisingly, the reactions Labov describes are similar to the reactions that Cherokee speakers have to the stories I have presented here.

Chafe (1982) identifies two sets of features that distinguish conversation from academic prose. One set, opposing fragmentation and integration, reflects the amount of information contained in "idea units"; the other set, opposing involvement and detachment, reflects the degree of involvement with the audience. Conversation is characterized by fragmentation and involvement; academic writing is characterized by integration and detachment. The characteristic features of Cherokee stories of amazing events reflect some integration and considerable involvement. Chafe (1982:52) suggests that oral literature--specifically ritual language--may be prototypically characterized by integration and detachment, noting that "the reciter of oral literature is, like a writer, detached from direct personal interaction". The features of involvement noted for these Cherokee stories follow from the fact that the story tellers are creating stories for their audiences, and not just reciting stories. The involvement reflected in these stories does not indicate that they are not literary, but rather that there is a distinction between traditional or ritual oral literature and contemporary oral literature.

I view these stories as examples of verbal performance art: they are dramatic in nature, just as Jacobs (1959) describes Clackamas myths as more similar to Western theater rather than to the short story or novel. Indeed, the best of these stories can be regarded as dramatic poetry, following Tedlock (1983).

These Cherokee stories are dramatic in that the structure of their plots can be seen in terms of acts and scenes, but more importantly, they are dramatic in the way that the storyteller uses his or her voice expressively, and uses voice and language to evoke the particulars of places and events. The language of the stories is poetic to the extent that the linguistic form carries important aesthetic content (cf. Bright 1984:134).[7] The repetition and parallelism in these stories contribute to their poetic quality.

Speakers' sensitivity to the aesthetic content of their stories is revealed not only in the text itself, but also in speakers' behavior with regard to the texts that they produce. In translating stories into English, a speaker's degree of concern with the phrasing of the English version correlates with the poetic quality of the original text. The speaker who recorded "The Little People" also recorded a story about a trip she took to Washington, D.C. The first story was highly structured, and had been told often; then second was an offhand account of a recent experience. In translating the first story into English, the speaker was very careful to consider the sound and flow of the English words, trying

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out various phrasings, repeating them several times, and rejecting some in favor of others which were more graceful. Her tone of voice was highly expressive, much the same in telling the English and Cherokee versions, and structures that were parallel in Cherokee were translated similarly in English. The English translation of the second story was much less carefully constructed.

The common technique of using spontaneous utterances as the basis for elicitation--asking speakers whether one or another word or construction could be substituted for the one used and asking what differences in meaning might result from the substitution--works differently with different kinds of utterances. I find this technique very easy to use with the utterances that arise in conversation or in brief anecdotes and other incidental stories, but I find it very difficult to use with utterances from the stories that I consider poetic. In working with me on transcribing stories from tape, speakers occasionally revise or edit the text, indicating that a particular phrase would be improved by making a change. But aside from these self-corrections, speakers hesitate to change the wording of those stories in any way, even with the understanding that the changed wording might not be appropriate for the original context. I believe that this hesitancy arises from the value that speakers attach to the linguistic form of the utterance, which would be compromised by changes.

3. Conclusion

Cherokee speakers consider stories of personal experience to be "good" only insofar as they appreciate both the content and form of the stories. Good stories are told with a minimum of verbal response from the audience. Speakers dislike having their stories interrupted; hence they must skillfully exploit the resources of the language to avoid unwanted ambiguity and to keep the audience's interest. Good stories of personal experience with the supernatural are practiced set pieces, and as such they provide examples of carefully structured, rhetorically sophisticated, highly-regarded speech.

Just as the content of traditional stories can reflect themes and ideas which are or have been of great importance to members of a culture, so can the content of contemporary stories of personal experience, like these stories of the supernatural. Each of the stories of experiences with the supernatural that I have recorded is clearly important to its teller. The stories reflect the conflicts that arise between traditional Indian and contemporary American beliefs, or between more spiritual or religious and more scientific expectations or outlooks. Thus a young couple's mobile home coexists with the Little People's trail. A young man is living far from home and drinking bootleg whisky, when he has a dream that portends his success as a traditional medicine man.

Women stay home instead of going to church, and a strange car, perhaps a symbol of modern white society, appears out of nowhere. These stories are clearly important to their audiences, who find considerable satisfaction in hearing them repeated. Indeed, repeated stories like these both reflect and create myth and culture.

So stories like these can be important for what they say about language use among the Cherokees and what counts as good Cherokee, for what they say about story-telling and its place in Cherokee culture, and also for what their content says about the conflicts inherent in contemporary Cherokee culture. But that is not all. Many of these stories are constant in form; occasions are created for them to be told. The stories can be regarded as polished, highly-valued, effective dramatic performances of verbal art. These stories have the characteristics of literature.

Studies of American Indian literature have increased greatly in number in recent years, but for the most part they remain limited in focus. Commonly, American Indian literature is regarded as consisting of traditional stories and rituals in an American Indian language, and contemporary novels and or poems in English. To be sure, scholars recognize that the traditional stories and rituals are often kept alive by contemporary speakers, who view them as important to their culture and who perform and may in some cases adapt the traditional texts. Still, the recent anthologies of American Indian literature and the recent collections of critical essays can suggest that American Indian cultures lack contemporary, creative, literary uses of American Indian languages--but that is not the case. Contemporary American Indian literature is not written only in English. Literary art in Cherokee and in other American Indian languages is still being created, and the oral literature of American Indians is not limited to religious rituals and traditional narratives.

NOTES

[1] Cherokee is a language of the Iroquoian family. There are several thousand Cherokee speakers, most of whom live in Oklahoma or North Carolina. My work on Cherokee has been conducted primarily with speakers of the Western dialect as it is spoken in Oklahoma. I am grateful to the Cherokee speakers who have allowed me to record and publish their stories, and to those who have worked with me on the material discussed here: Ginny Byrd Pittman, Virginia Carey, Martin Cochran, George Pumpkin, Anna

Rackliff, the late Scott Rackliff, and Sallie Sevenstar. Some of my field work was conducted on research trips with Geoffrey Lindsey or Carole Raybourn, and I am grateful to them for their insights into Cherokee language and culture. Alan Kilpatrick, Jack Martin, and a reviewer for Kansas Working Papers in Linguistics offered helpful comments on an earlier version of this paper. My research has been supported by the Phillips Fund of the American Philosophical Society, the Institute of American Cultures and the American Indian Studies Center at UCLA, the Jacobs Research Funds, the National Endowment for the Humanities, and the College of William and Mary.

[2] Speck 1926 and Olbrechts 1931 contain transcriptions of additional oral material as well.

[3] The Cherokee orthography used here is the same one used in Scancarelli (to appear). The symbol v̲ represents a nasalized mid central vowel; the apostrophe represents glottal stop; long vowels are marked with a colon; pitch is not marked. The orthography is similar to the orthography in Feeling (1975), but Feeling (a) uses the phonetic symbol [], rather than an apostrophe, for glottal stop, (b) marks short vowels in open syllables with an underdot, rather than marking long vowels, and (c) marks pitch with a system of superscripts.

[4] The full text of "The Little People" appears in Scancarelli (in preparation) in a more highly edited version.

[5] Fortunately, good speakers are often willing to have their speech recorded. It is possible to record poorly-told stories as well; they provide an interesting contrast to good ones. Here I restrict my attention to good stories.

[6] The example passages are presented first in Cherokee and then in English. The Cherokee transcription shows fairly casual pronunciation. The English translation is faithful to the translation provided by the speaker; the translation preserves the structure of the Cherokee where that does not compromise the sense of the English. Commas mark the ends of vocal phrases or lines, which are often clauses. They are signalled by intonational cues and short pauses. Periods mark the ends of units that can be characterized as sentences, signaled by syntax, intonational cues, and longer pauses. Sentences are numbered with superscripts. Dashes (--) mark places where two clauses, each with its own intonation contour, are run together without pause. Paragraphs are larger units, signaled by syntax, intonation, and long pauses.

[7] In claiming that some of these stories are poetic, I do not claim that they are told in verse. See Hymes (1981), Tedlock (1983), Bright (1984), and Mattina (1987) for perspectives on the relationship between verse and narrative.

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ENDANGERED LANGUAGES DATA SUMMARY

Linguistic Society of America
Committee on Endangered Languages & Their Preservation
Compiled by Akira Y. Yamamoto
University of Kansas

At the 1995 meeting of the Linguistic Society of America (LSA) in New Orleans, Louisiana, the Committee on Endangered Languages and Their Preservation proposed a survey on endangered languages with which the LSA members have worked or are working. In consulting with other linguistic societies and organizations such as German Linguistic group, Endangered Languages Clearing House, Society for the Study of the Indigenous Languages of the Americas (SSILA), the Endangered Languages Survey Questionnaire was prepared. Both the LSA Bulletin and the SSILA Newsletter included the questionnaire in their late summer issues.

To the call for assistance in compiling information on endangered languages, forty-eight (48) language researchers responded on 80 languages/dialects. Language researchers reported from Australia (2), from Belize (1), from Canada (1), from China (1), from Denmark (1), from Mexico (1), from the Netherlands (1), from Venezuela (1), and the rest from the United States (39).

This is the first report on the result of the survey, and the data base is perhaps too small to be effective. The purpose of this report is to alert the readers of the following:

a) The reasons for the small sample of the languages reported here may indicate the sensitive nature of a survey of this kind. That is, in many cases the linguistic researchers may be cooperatively working with the language communities and what is to be reported may be dependent on the wishes of the communities.

b) This report is preliminary and therefore very tentative in nature, and the readers are advised to use this with other published materials such as Barbara F. Grimes' Ethnologue (11th edition, 1988).

c) We want to appeal to a wider range of readers to contribute their responses to make such a survey more effective.

The Committee members believe that the survey and the kind of data compiled will provide a significant information not only for the academic linguists, but for the endangered language communities as well as for the general public. The survey, therefore, will be conducted again to increase the information on the endangered languages. The Committee will request the LSA and SSILA to include the questionnaire in their future bulletin and newsletter. The questionnaire will be essentially the same in its question items, but a brief statement will be added to clarify the nature of information requested: "In some cases, the community situation may not allow you to provide all the information requested in the questionnaire, or you may not be able to answer all the questions. Please provide us with as much information as you feel comfortable in sharing."

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Kansas Working Papers in Linguistics, Volume 21, 1996, pp. 159-229

This report is organized by country. Within each country, the languages are ordered alphabetically. In the main entry, there may be a note stating **See attached page**. These additional pages providing additional information are grouped together at the end as **Appendix** and the items appear alphabetically according to the language/dialect names of the main entries. The main entries for each country are preceded by a summary using the following format for listing:

Countries (Number of languages/dialects)
Name of language/dialect, Lg Family [Researchers reporting]

1. 1995 Survey Form

TO: All LSA Members
FROM: Committee on Endangered Languages and Their Preservation
SUBJECT: Request for your cooperation

The Linguistic Society of America's Committee on Endangered Languages and Their Preservation would like to ask for your help in compiling a database on the status of the endangered languages of the world and the research being done on them.

Background:

The Committee has received many inquiries from Native American communities regarding the status of their languages, who has worked on those languages, whether or not anything can be done to revive, maintain, or enhance them. We expect to receive an increasing number of such inquiries from other communities and individuals throughout the world.

A good deal of work has been done already that can form the basis for a database that can be used to respond to such inquiries. The Society for the Study of Indigenous Languages of the Americas (SSILA) has compiled with its membership list the languages that its members have researched. Barbara F. Grimes has authored the Ethnologue [(12th edition) Dallas, Texas: Summer Institute of Linguistics, 1992], which presents an impressive amount of important data on the status of languages of the world; Joseph Grimes, Barbara Grimes, David Stampe, and Evan Antworth have recently made it easier for us to access information on the status of those languages contained in Ethnologue by placing it on the SIL's World Wide Web site. Linguists in Germany are preparing a questionnaire on endangered languages. The Department of Asian and Pacific Linguistics of the University of Tokyo has accepted the UNESCO's request to be the clearing house for information on the world's endangered languages.

Purpose:

Beyond the above resources, what is needed from LSA members is a comprehensive list of the endangered languages of the world, the state of their vitality, and the nature and goals of current work on them. The Committee on Endangered Languages and Their Preservation needs information that will complement the existing sources, and, in particular, information that would be helpful to community leaders, educators, and the general public, as well as to other linguists concerned with the documentation and preservation of these languages.

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Data Management:

The data gathered in this survey will be processed initially at the University of Kansas, under the direction of the Chair of the Committee on Endangered Languages and Their Preservation. Further processing of the data, including its updating and dissemination, will be managed by the Committee in consultation with SSILA and other relevant organizations.

Request:

Please fill out a copy of the questionnaire on the other side of this sheet for each language or language community you have worked with, or for which you have reliable information. Please return the completed form to:

Akira Yamamoto, Chair of the Committee
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1. Information on the researcher supplying this information:
   Name:
   Where and How To Contact (Address, e-mail, phone, FAX, etc.)

2. Language (or dialect) with its affiliation/language family:

3. Year(s) and location of field work (including a broad geographical area designation):

4. Other language community/communities in which this language (or dialect) is spoken*:

5. What is the vitality of the language? [1) estimated number of speakers, 2) approximate proportion of speakers to the total population, 3) is the language being acquired by children? 4) is there a community language program or other preservation activities? 5) others] (Please note if these comments apply to item 3, or to a larger language community noted in item 4.):

6. What is the nature and goal(s) of the researcher's field work, and what further linguistic work remains to be done?:

7. Major prior linguistic documentation if any:

8. Additional comments:

*If you are providing information derived from sources other than your own research, please note (in item 8) the names of the other researchers or sources.

Thank you for taking time to fill out the questionnaire.

2. Reported Languages/Dialects by Countries

Abbreviated field names are as follows:

Inf by	=	information reported by
Lg.Dlct	=	language or dialect
Lg affil	=	language affiliation/language family
Fldwrk loc	=	fieldwork location
Othr lg com	=	other language communities
Ntr fldwrk	=	nature of fieldwork and needed linguistic work
Est # spkrs	=	estimated number of speakers & is the lg acquired by children?
Total pop	=	size (number) of the total population
Lg prgm	=	is there a language program?
Othr prs act	=	are there other language preservation activities?
Major doc	=	major documentation and the data compilation date

Total number of languages/dialects reported: 84
Total number of researchers responded: 49
Number of speakers, range of: 0 - 350,000
Compilation Date: February 17, 1996

Australia (1)
Wambaya, West Barkly [Rachel Nordlinger <rachel@csli.stanford.edu>]

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Lg . Dlct: **Wambaya**

Lg Affil: West Barkly Family, a non-Pama-Nyungan language of Australia.

Fldwrk loc: Barkly Tablelands area of Northern Australia, esp. the towns of Elliott, Tennant Creek, and Borroloola in the Northern Territory, **Australia**. [since 1991]

Othr Lg Com:

Ntr Fldwrk: Ongoing projects: 1) Expanding & improving grammar (Nordlinger, 1993), 2) Text collection, 3) Dictionary development, 4) Creation of educational materials.

Est # spks: Approx. 10-12 fluent speakers, all over the age of 60. Many people above 35-40 yrs have a reasonable passive knowledge, but little spoken knowledge. No children speaking the language.

Total Pop: A few hundred (?)

Lg Prgm:

Othr Pre Act: Low scale preservation activities, mainly vocabulary collection.

Major Doc: 1) Fieldnotes by Ken Hale (1959). 66pp. Includes a brief grammatical description. 2) Nordlinger, Rachel. 1993. A Grammar of Wambaya. MA Thesis. University of Melbourne, Australia. 3) Chadwick, Neil. 1978. The West Barkly Languages, Complex Morphology. PhD Dissertation. Monash University, Australia (some discussion of Wambaya). 9/1/95

Belize (1)
Belize Creole [Ken Decker <ken.decker@sil.org>]

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Lg Dict	**Belize Creole**
Lg Affil	Creole with English-lexicon.
Fldwrk loc	**Belize**, Caribbean Coast of Central America [1993-present].
Othr Lg Com	There are said to be as many Belize Creole speakers in New York, Chicago, and Los Angeles as in Belize.
Ntr Fldwrk	Decker is working as a consultant to Belizean Creoles who are actively promoting and developing the language.
Est # spks	Approx. 60,000 speakers of Creole as their first language in Belize. There are twice as many Spanish spks, but the Creole spkrs are culturally dominant. Creole is virtually everyone's second langauge, if not the first.
Total Pop	Approx. 205,000 and Creole is virtually everyone's second language if not the first.
Lg Prgrm	Yes. There is a discussion of use in the schools also.
Othr Pro Act	
Major Doc	Thorough documentation. 1) Dayley, Jon P. 1979. Belizean Creole. Peace Corps Language Handbook Series: Brattleboro, Vermont; 2) Young, Colville N. 1973. A Study of the Creolized English Spoken in the City of Belize in its Cultural and Social Setting. 9/20/95

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Brazil (8)

Baniwa of Içana, Hohôdene, Siucí; North Arawak [Alexandra Aikhenvald <aikaling@durras.fac.anu.edu.au>]

Bare, North Arawak [Alexandra Aikhenvald <aikaling@durras.fac.anu.edu.au>]

Jarawara Dialect of Madi, Arawá Lg Family [RMW Dixon, Alan Vogel <ARVST1@unix.cis.pitt.edu>]

Kadiweu, Waikuruan Lg Family [Filomena Sandalo <sandalo@NL.cs.cmu.edu>]

Kwaza, Affiliation unknown [Hein van der Voort <hein.van.der.voort@let.uva.nl>]

Tariana, North Arawak [Alexandra Aikhenvald <aikaling@durras.fac.anu.edu.au>]

Warekena of the Xie River, North Arawak [Alexandra Aikhenvald <aikaling@durras.fac.anu.edu.au>]

Xavante (Shavante), Gê Lg Family [Laura Graham <laura-graham@uniowa.edu>]

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Lg . Dict: **Baniwa** of Içana; **Hohôdene**; **Siucí**

Lg Affil: North Arawak (Rio Negro Group, Baniva Subdivion by Mason, 1950).

Fldwrk loc: Içana River, Community of Ukuki-cachoeira, Upper Rio Negro, Amazonas, **Brazil**

Othr Lg Com: Numerous communities on the Içana River and in Sao Gabriel da Cachoeira.

Ntr Fldwrk: 1) Grammar, 2) Dictionary, 3) Text collection (350pp. done).

Est # spks: 3,000+ of various dialects of Baniwa.

Total Pop:

Lg Prgrm: Orthography in Hohôdene dialect. Several attempts to teach the basic literacy in the language.

Othr Pro Act:

Major Doc: **(See appendix)**
9/10/95

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Lg . Dlct	**Bare** [In Brazil it is called Barawana and in Venezuela Baré, according to Voegelin & Voegelin 1977]
Lg Affil	North Arawak (Orinoco Group by Schmidt, 1926).
Fldwrk loc	Cucui, Sao Gabriel da Cachoeira, Upper Rio Negro, Amazonas, **Brazil**.
Othr Lg Com	Santa Rosa de Amanadona and Sn Carlos in Venezuela.
Ntr Fldwrk	1) Grammar (forthcoming in Lincom Europpa Language Materials, 100), 2) Dictionary (in preparation), 3) Text collection (in preparation)
Est # spks	The last speaker in Brazil died in 1992. Approx. 20 old speakers in Venezuela.
Total Pop	Several thousands who may speak either Nheengatu (Lingua Geral) or only Portuguese or Spanish.
Lg Prgrm	
Othr Pro Act	
Major Doc	**(See appendix)** 9/9/95

Inf by	R M W Dixon
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Lg . Dlct	**Jarawara** Dialect of **Madi** Language. Other dialects include Jamamadí and Banawá. **(See appendix; See also Alan Vogel)**
Lg Affil	Arawá Language Family. [Not to be confused with Arawak.]
Fldwrk loc	Jarawara village of Casa Nova, near the Purús River, State of Amazonas, **Brazil**.
Othr Lg Com	Two other dialects of the same language: Jamamadi (approx. 180 speakers) and Banawá (approx. 90 speakers).
Ntr Fldwrk	1) Comprehensive grammar, 2) Dictionary, 3) Text collection. RMW Dixon is co-researcher along with Alan Vogel.
Est # spks	150 speakers spread over 7 jungle villages. All have Jarawara as first lg. Over 20% are literate in Jarawara. Children are acquiring the lg.
Total Pop	
Lg Prgrm	Yes.
Othr Pro Act	
Major Doc	Negligible. 9/11/95

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Inf by	Alan Vogel
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Lg . Dlct	**Jarawara** Dialect of **Madi** Language. Other dialects include Jamamadi and Banawá. **(See appendix)**
Lg Affil	**Arawá Language Family**. [Not to be confused with Arawak.]
Fldwrk loc	Jarawara village of Casa Nova, near the Purús River, State of Amazonas, **Brazil**.
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary. Alan Vogel is co-researcher along with RMW Dixon.
Est # spks	150 speakers spread over 7 jungle villages. All have Jarawara as first lg. Over 20% are literate in Jarawara.
Total Pop	
Lg Prgrm	The literacy program is informal. All teachers are Jarawaras. Literacy materials, Jarawara-authored stories, Bible stories, and others.
Othr Pro Act	
Major Doc	Several articles on Jamamadi have been published over the last 25 years by Robert and Barbara Campbell. 9/20/95

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Lg . Dlct	**Kadiweu**.
Lg Affil	Waikuruan Family.
Fldwrk loc	Serra da Bodoquena, Mato Grosso do Sul, **Brazil** [1993, 1994, 1995]
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary.
Est # spks	1,500, of whom around 3% acquire Portuguese as first language (by 1993 report by Fundacao Nacional do Indio (FUNAI), Brasil).
Total Pop	850 (Grimes 1988: 96, SIL 1986 figure).
Lg Prgrm	
Othr Pro Act	
Major Doc	**(See appendix)** 9/17/95

Inf by	Hein van der Voort
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Lg . Dlct	**Kwaza** (also as Koaiá, Koayá, Coaiá, Quaiá)
Lg Affil	Unknown.
Fldwrk loc	Municipality of Vilhena, Southern Rondônia, **Brazil**.
Othr Lg Com	Unknown.
Mtr Fldwrk	1) Documentation and description of the language, 2) Identification of the lg classification. [Note that Kaufman in his "Language History in S America" in Doris Payne, ed. Amazonian Linguistics, 1990 (Austin University of Texas Press) lists Kwaza as 'dead' (AYY)]
Est # spks	Approx. 20, majority of whom are not of the Kwaza Nation, and most are members of the Aikanã Nation. Children acquire the lg, although not all adult Kwaza speakers pass it to their children.
Total Pop	Unknown at the time of this report.
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Stanislav Zach's unpublished word lists from the beginning of the century; 2) Claude Lévi-Strauss' unpublished word list (1930s); 3) Harvey Carlson's unpublished word list (1984); 4) Unpublished fieldwork interviews on tape by Ione Vasconcelos (1994). (Cont'd in appendix) 9/10/95

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Lg . Dlct	**Tariana**.
Lg Affil	North Arawak (Rio Negro Group, Tarinan Division by Mason, 1950).
Fldwrk loc	Communities of Santa Rosa and Juquira ponta in the Territory of Vaupes, Amazonas, **Brazil**.
Othr Lg Com	Periquitos in Brazil.
Mtr Fldwrk	1) Grammar (in progress), 2) Dictionary (in progress), 3) Text collection (around 500pp.).
Est # spks	100. All speakers in both communities are multilingual. Children are not acquiring the lg.
Total Pop	1,500.
Lg Prgrm	
Othr Pro Act	A lg preservation project is proposed by Simeon.
Major Doc	1) Aikhenvald, A.Y. 1994. "Classifiers in Tariana." AL 36:405-465; 2) AAY. 1994. "Grammatical Relations in Tariana." Nordic J of Ling 17,2:201-218; 3) AAY.To appear. "Classe nominal e gênero nas línguas Aruák. Boletim do Museu Goeldi, Belem, Pará; (**Cont'd in appendix**) 9/9/95

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Lg / Dlct	**Warekena** of the Xie River
Lg Affil	North Arawak (Orinoco Group by Schmidt, 1926)
Fldwrk loc	Communities of the River Xie, **Brazil**
Othr Lg Com	Another dialect is spoken in Marva, Atabapo on the River Guainia in Venezuela.
Nbr Fldwrk	1) Grammar (250pp, in the Handbook of Amazonian Languages, Vol 4), 2) Dictionary (in preparation), 3) Text collection (in preparation).
Est # spks	A few dozen adults in Brazil. There are about 200 speakers in Venezuela.
Total Pop	
Lg Prgrm	
Othr Pro Act	
Major Doc	(See appendix) 9/95/95

Inf by	Laura R. Graham
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Lg / Dlct	**Xavante** (Shavante)
Lg Affil	Gê (Jê) Family.
Fldwrk loc	Mato Grosso, **Brazil** (in the Reserve of Pimentel Barbosa, one of 6 Xavante Reserves).
Othr Lg Com	
Nbr Fldwrk	1) Lg and culture research (gender & discourse, current project, 2) Lg socialization, 3) Formal work on honorific system.
Est # spks	6,000; Xavante is the first lg of all speakers, some adult males speak Portuguese; few women speak Portuguese.
Total Pop	
Lg Prgrm	
Othr Pro Act	No language preservation programs. Education is intermittent (Xavante & Portuguese very little in mission communities only).
Major Doc	1) Graham, Laura R. 1995. Performing Dreams: Discourses of Immortality among the Xavante of Central Brazil. Austin: University of Texas Press. [Ethnography of communication (i.e., speech styles, gender differences, socialization, patterns of speaking, honorifics)] 9/6/95

Canada (7)

Cayuga, Iroquoian Lg Family |Michael Foster, Marianne Mithun <mithun@humanitas.ucsb.edu>|

Maliseet-Passamaquoddy, Algonquian Lg Family |Karl van Duyn Teeter <kvt@husc.harvard.edu>|

Mohawk, Iroquoian Lg Family |Marianne Mithun|

Oneida, Iroquoian Lg Family |Bryan Gick <bgick@nimerva.cis.yale.edu>|

Onondaga, Iroquoian Lg Family |Hanni Woodbury <thwoodbury@delphi.com>|

Tuscarora, Iroquoinn Lg Family |Marianne Mithun <mithun@humanitas.ucsb.edu>|

Wyandotte, Iroquoian Lg Family |Bruce Pearson <blpears@univscvm.csd.sc.edu>|

Inf by: Michael K. Foster

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Lg . Dict: **Cayuga**.

Lg Affil: Iroquoian Family.

Fldwrk loc: Six Nations Reserve, Ontario, **Canada**.

Othr Lg Com: There are rumored to be Cayuga speakers in New York State. There may be a handful in Oklahoma.

Mir Fldwrk: 1) Traditional texts (editing, translating & analyzing) on council speaking, 2) Dictionary (with a morphological introduction).

Est # spks: 130 ~ 150, most over the age of 50. Few children acquire the lg.

Total Pop: The band membership for the Six Nations Reserve is around 16,500, with a half of the population living off the reserve. (**See appendix**)

Lg Prgm: The language is offered in the elementary and middle grade levels of some rserve schools.

Othr Pro Act:

Major Doc: Collection of "hierarchical" Longhouse Speeches (1974) by Micheal Foster. The principal work on Cayuga has been conducted by Marianne Mithun and Foster. Mithun has written a number of papers and a teaching grammar of the language with Reg Henry. 9/20/95

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Inf by	Marianne Mithun
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Lg . Dict	**Cayuga**.
Lg Affil	Iroquoian Family
Fldwrk loc	Six Nations Reserve, Ontario, **Canada**
Othr Lg Com	
Ntr Fldwrk	1) Documentation of the spoken language (narrative and conversation).
Est # spks	130 – 150, most over the age of 50. Children are not acquiring the lg.
Total Pop	3,000 on the Six Nations Reserve, Ontario, Canada. **(See appendix)**
Lg Prgrm	Community based language classes for children and adults. The lg is offered also some reserve schools (elementary & middle grades)
Othr Pro Act	
Major Doc	1) Foster, Michael. 1974. From the Earth to Beyond the Sky ["hierarchical" Longhouse Speeches]. 2) Mithun, Marianne and Reg Henry. 1982. Watęwayęstanih: A Cayuga Teaching Grammar. Brantford, Ontario: Woodland Indian Cultural Educational Center. 3) Various articles & texts by Mithun. 9/11/95

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Lg . Dict	**Maliseet-Passamaquoddy**.
Lg Affil	Algonquian Family
Fldwrk loc	Western New Brunswick, **Canada** (St. John River valley), and eastern Maine (St. Croix River valley), **USA**.
Othr Lg Com	New Brunswick (Tobique, Woodstock, Fredericton, and Oromocto); Maine (Perry, Princeton, Houlton, Indian Island, nominally Penobscot).
Ntr Fldwrk	Goal: 1) Grammar, 2) Dictionary, 3) Texts. [1963-1989, fieldwork with Dr. Peter Lewis Paul of Woodstock, N.B.] A volume of texts underway to be published in the Algonquian Text Series.
Est # spks	Approx. 1,000 speakers. Children are not learning the lg.
Total Pop	Approx. 2,500 - 3,000.
Lg Prgrm	Language instruction in several places, including the Micmac-Maliseet Institute at the University of New Brunswick, Fredericton, N.B.
Othr Pro Act	
Major Doc	1) Around the turn of the century by J.D. Prince and by Montague Chamberlain. 2) Sherwood, David Fairchild. 1983. Maliseet-Passamaquoddy Verb Morphology. PhD Dissertation. Yale. **(Continued in appendix)** 9/1/95

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Lg . Dlct	**Mohawk**.
Lg Affil	Iroquoian Family.
Fldwrk loc	**Kahnawà:ke**, Quebec; **Ahkwesahsne**, Quebec Ontario New York **(USA)**; Thayendanega, Ontario; Six Nations Reserve, Ontario; Wahta, Ontario. **Canada**.
Othr Lg Com	Certain urban centers.
Ntr Fldwrk	1) Full documentation of the language including narrative and conversation, 2) Full grammatical description, 3) Assistance with the language programs.
Est # spks	Several thousand speakers. The situation varies by community: in some communities, middle age and older speak, in others only a few. In particular a few children acquire the lg.
Total Pop	5,638 in New York, 7,671 in Canada (Robert N. Wells, Jr. in Davis 1994: 353).
Lg Prgrm	Community programs are very active and successful. Three communities have ambitious and successful immersion programs.
Othr Pro Act	
Major Doc	1) Beatty, John. 1972. Mohawk Morphology. PhD Dissertation. City University of New York; 2) Bonvillain, Nancy. 1973. A Grammar of Ahkwesasne Mohawk. Ottawa: National Museum of Man. Mercuty Series 8; **(Continued in appendix)** 9/11/95

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Lg . Dlct	**Oneida**.
Lg Affil	Iroquoian Family.
Fldwrk loc	Oneida, New York, **USA**, with speakers from Oneida Reserve in Southwold, Ontario, **Canada**. (The original homeland is the Oneida Reservation in Oneida, NY.)
Othr Lg Com	Oneida is spoken only on the Reserves in Ontario and Wisconsin. Attempts are now being made to reintroduce the lg in Oneida, New York.
Ntr Fldwrk	1) Translating and databasing previously written and recorded texts; 2) New text collecting, translating, and databasing under the direction of Floyd Lounsbury of Department of Anthropology, Yale University.
Est # spks	Approx. 50 in Ontario; about a dozen in Wisconsin; a few in Oneida, New York.
Total Pop	3,000 in Ontario, Canada; 700? in Wisconsin and 700 in New York, USA (Jack Campisi in Davis 1994: 407-408).
Lg Prgrm	The Oneida people in NY are currently implementing extensive programs to reintroduce the language in schools.
Othr Pro Act	To a lesser extent, language programs are implemented for adults and preschool children.
Major Doc	1) Lounsbury, Floyd. 1953. Oneida Verb Morphology. Yale University Publications in Anthropology No. 48 [1976 reprint is still available from: Human Relations Area Files Press, 455 Prospect St., New Haven, CT 06511); 2) There are many others. 9/14/95

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Inf by	Hanni Woodbury
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Lg . Dict	**Onondaga**.
Lg Affil	Iroquoian Family.
Fldwrk loc	Six Nations Reserve, Brantford, Ontario, **Canada**.
Othr Lg Com	Onondaga Nation, Nedrow, New York. (The number of speakers at 50 in 1980's.)
Ntr Fldwrk	1) Preparation of reference dictionary and 2) Teaching grammar. Both are sponsored by the Ontario Training and Adjustment Board, the Six Nations of the Grand River, and Woodland Cultural Center. 3) Text collection.
Est # spks	34 at Six Nations according to the Sweetgrass First Nations language Council at Six Nations Reserve (5/31/95)
Total Pop	18,173 (Total enrollment; approx. 1/2 live off the reserve. Thus Onondaga is spoken by less than 1/2 of 1% of those at Six Nations.
Lg Prgrm	The lg is taught for a short period each day in grade school at Onondaga Nation. No lg classes at Six Nations.
Othr Pro Act	
Major Doc	1) Chafe, Wallace L. 1970. A Semantically Based Sketch of Onondaga. IJAL, IUPublications in Anth & Ling Memoir 25. 2) Woodbury, Hanni. 1975. Noun Incorporation in Onondaga. Yale Univ Dissertation; (**Continued in appendix**) 9/9/95

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Lg . Dict	**Tuscarora**.
Lg Affil	Iroquoian Family.
Fldwrk loc	Western New York near Niagara Falls (Lewiston), **USA**; Six Nations Reserve near Brantford, Ontario, **Canada**.
Othr Lg Com	
Ntr Fldwrk	1) Full Documentation, 2) Grammar (revised edition in progress), 3) Dictionary (extensive compilation being completed by Blair Rudes).
Est # spks	A handful of speakers [Mithun and others are working with all the speakers who are all elderly.] Children are not acquiring the lg.
Total Pop	1,200 in New York (Chief Kenneth Patterson in Davis 1994: 663).
Lg Prgrm	Language classes in elementary schools in New York State.
Othr Pro Act	
Major Doc	1) Extensive texts recorded a century ago by J.N.B. Hewitt for the Smithsonian Institution; 2) Texts collected and published by Blair Rudes; 3) Grammar by Mithun (Williams) in 1976 (Garland); 4) Various articles and texts by Mithun. 9/11/95

Inf by Bruce L. Pearson

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Lg . Dlct **Wyandotte. (See appendix)**

Lg Affil Iroquoian Family.

Fldwrk loc Extinct. Archival work. (Originally Quebec, Canada) [Currently we find Wyandotte people in Oklahoma, USA. It is reported that the last speaker passed away in 1995.]

Othr Lg Com

Ntr Fldwrk 1) Grammar, 2) Dictionary.

Est # spks 0.

Total Pop 3,617 in Oklahoma, USA (Clifford E. Trafzer in Davis 1994: 700)

Lg Prgrm

Othr Pro Act

Major Doc 1) Barbeau, marius. 1960. Huron-Wyandotte Traditional Narratives. National Museum of Canada Bulletin 165 (Ottawa, Canada). [40 Wyandotte narratives with English translation]. 2) Pearson, Bruce L. To appear. The Wyandotte Language. Columbia, SC: Yorkshire Press. [comprehensive grammatical description with lexicon] 2/17/96

China (2)

Salar, Turkic (Oghuz Lg Family) [Arienne Dwyer <adwyer@u.washington.edu>]

Secret Language of China [Qu Yanbin]

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Lg : Dlct	**Secret language** (folk enigmatic language & cant) of Chinese
Lg Affil	
Fldwrk loc	Shenyang, Liaoning Province, **China** [more than 20 years]
Othr Lg Com	
Ntr Fldwrk	
Est # spks	Approx. 10,000 (= 0.03% of the total population)
Total Pop	
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Some aspects of the language recorded as early as the 9th century B.C.; 2) arucles and books by Qu Yanhan 10/23/95

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Lg Dlct	**Salar. (See appendix)**
Lg Affil	Turkic; Oghuz Family.
Fldwrk loc	Amdo Tibet=Qinghai Province, China (Hunhua and Hualong Cos.) Eastern Turkestan=Xinjiang Uyghur Autonomous Region, **China** (Samyz Co. in the Ili Valley) [Fieldwork period: 1991-1993].
Othr Lg Com	
Ntr Fldwrk	Goals: 1) Salar phonology (Dissertation), 2) Comparison of Eastern (Amdo) and Western (Xinjiang) Salar dialects, 3) Salar grammar (reference book, in progress), 4) Salar texts (book, in progress)
Est # spks	50,000 (?); Non-speakers are largely in major cities away from areas listed above. Rural children (=most of total population) still acquire Salar at home, but Tibetan and Chinese in the streets.
Total Pop	90,000 (1990 Chinese census)
Lg Prgrm	
Othr Pro Act	
Major Doc	1) E.R. Tenishev. 1976. Strou salarskogo jazyka. Moscow: Nauka. 2) Lin Lianyun. 1992. Sala-Han Han-Sala cihui. Chengdu: Minzu. 9/1/95

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France (1)
Gascon Dialect of French, Romance Lg Family
[Francis Karam]

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Lg . Dlct	Gascon Dialect of **French**, vernacular of Donzac (Tarn-et-Garonne).
Lg Affil	Romance.
Fldwrk loc	Donzac, a rural community of southwest **France** [1960, 1962, 1963].
Othr Lg Com	None.
Mtr Fldwrk	
Est # spks	In 1960, a handful of speakers age 65 and older. At the time of the field work, the dialect was on the brink of extinction.
Total Pop	
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Kelly, Reine Cardullac. 1973. A Descriptive Analysis of Gascon. The Hague: Mouton. Ms. Kelly died a premature death in the 1970s. Karam knew her at the University of Southern California. 9/17/95

Germany (1)
Sorbian (Upper and Lower), West Slavic Lg Group
[Gunter Schaarschmidt <gschaar@uvvm.uvic.ca>]

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Lg . Dlct **Sorbian** (Upper and Lower).

Lg Affil West Slavic Language Group

Fldwrk loc Saxony and Brandenburg, **Germany** [1989, 1992]

Othr Lg Com None

Ntr Fldwrk 1) Historical phonology of Upper and Lower Sorbian (book to appear). 2) Historical syntax

Est # spks 45,000 Upper Sorbian & 15,000 Lower Sorbian, i.e., less than 0.1% of the total population of Germany.

Total Pop

Lg Prgrm Lg of instruction in some schools; officially recognized bilingual region, but learned as a second lg.

Othr Pro Act Research institute in Bautzen (Saxony); language teacher training institute in Bautzen; radio program (one hour/day).

Major Doc 1) Sorbian Linguistic Atlas (14 vols.). Sorbian Institute. 1965-93; 2) Sewc, H. 1968 & 1976. Grammar (in Upper Sorbian); 3) Jentsche, H. et al. 1989-1991. German-Upper Sorbian Dictionary; 4) Schuster-Sewc, H. 1978-1989. Upper and Lower Sorbian Etymological Dictionary.

9/4/95

Greenland (2)
West Greenlandic (Inuit), Eskimo-Aleut [Jerrold Sadock <sadock@sapir.uchicago.edu>]
Inuktitut, Eskimo-Aleut [Jerrold Sadock]

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Lg Dict **West Greenlandic** (Inuit).

Lg Affil Eskimo-Aleut.

Fldwrk loc West **Greenland**, Baffin Island, Keewatin.

Othr Lg Com None.

Nlr Fldwrk 1) Grammar of West Greenlandic (about 2/3 finished).

Est # spks 45,000. Nearly all children are learning the lg.

Total Pop

Lg Prgrm

Othr Pre Act

Major Doc Considerable amount of work has been done.
9/6/95

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Lg . Dlct **Inuktitut** (Inuit).

Lg Affil Eskimo-Aleut.

Fldwrk loc West **Greenland**, Baffin Island, Keewatin.

Othr Lg Com North Alaskan Eskimo (4,000) & Northwest Alaska Inupiat Eskimo (4,000) in Alaska; Copper Inuktitut (2,000) & Eastern Arctic Inuktitut (17,500) in Canada; Greenlandic (45,000) (Grimes 1988: 12, 15).

Mtr Fldwrk 1) Grammar.

Est # spks 20,000. Number of children learning the lg, but varies greatly by community. The further west, the fewer.

Total Pop

Lg Prgm

Othr Pro Act

Major Doc Considerable amount of work has been done.
9/6/95

Guadeloupe (1)
Guadeloupean French Creole, Atlantic Lesser Antilles French Creole [Gregory Paul Meyjes <gppm@acpub.duke.edu>]

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Lg . Dlct	**Guadeloupean French Creole**
Lg Affil	Atlantic Lesser Antilles French Creole.
Fldwrk loc	**Guadeloupe** (French West Indies) [1992-1993].
Othr Lg Com	**Martinique** (French West Indies). This variety is distinguished from Commonwealth French Creole, Haitian French Creole, Louisiana French Creole, Guinanese French Creole, and Karipuna French Creole (Brazil)
Nr Fldwrk	**Language attitude study** (survey, ethnography, literature review) into the social psychology of on-going language shift toward French in Guadeloupe. Needed: Descriptive linguistic data collection on this language shift.
Est # spks	350,000 in Guadeloupe (1990), well over one million total (also see Grimes 1988: 75, who cites 1975 figure).
Total Pop	387,000 (1990 census). Acquisition of the lg depends on demographic factors (including gender) & attitudes of immediate family members.
Lg Prgm	Long-standing experimental public school program in municipality of Capesterre.
Othr Pro Act	Various cultural groups and activities, radio and limited television broadcasts as well as sparse publications.
Major Doc	1) Meyjes, Gregory Paul P. 1995. On the Status of Creole in guadeloupe: A Study of Present-Day Language Attitude." PhD Dissertation. Department of Linguistics, University of North Carolina at Chapel Hill; **(Continued in appendix)** 9/28/95

Guatemala (2)

Chuj, Mayan Lg Family [Judith Maxwell <cirma@uvg.edu.gt>]

Kaqchikel, Mayan Lg Family [Judith Maxwell <cirma@uvg.edu.gt>]

(Mayan dialects of Mexico and Guatemala [Eleanor Frankle])

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Lg / Dlct	**Chuj** (See appendix)
Lg Affil	Mayan Family.
Fldwrk loc	Huehuetenango, **Guatemala**
Othr Lg Com	Huehuetenango (3 town: S.Mateo Ixtatán, S. Sebastian Coatán, Nentón)
Ntr Fldwrk	1) Discourse analysis, 2) Dictionary and grammar compilation 3) Technical preparation of bilingual teachers, 4) Development of bilingual teaching text for monolingual children who want to learn Chuj (native literature creation).
Est # spks	Approx 40,000 speakers, almost all population of S. Mateo and S. Sebastian, and 1/3 of Nentón. Almost all children acquire the lg.
Total Pop	
Lg Prgm	Some adult education. One bilingual teacher.
Othr Pro Act	Academy of Mayan Lgs of Guatemala supports local committee, but the committee does little is due to lack of training.
Major Doc	1) Proyecto Lingüístico Francisco Marroquín (PLFM) grammar & dictionary; 2) URL writing manual "Escribiendo Chuj." Gaspar Mendoza Diego 1993; 3) Maxwell, Judith M. 1982. How to talk to people who talk 'different': the Chuj (Mayan) solution. PhD Dissertation. University of Chicago; 4) Nick Hopkins' work. 9/4/95

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Lg / Dlct	**Kaqchikel** (Cakchiquel) (See appendix)
Lg Affil	Mayan Family.
Fldwrk loc	Chimaltenango, **Guatemala**
Othr Lg Com	Dep'ts of Guatemala, Sacatepéquez, Chimaltenango, Escuintla, Sololá, Suchitepéquez, Baja Verapaz.
Ntr Fldwrk	1) Discourse analysis, 2) Neologisms for technical and educational texts in 7 Mayan lgs of K'ichean group, 3) Technical preparation of bilingual teachers, 4) Development of bilingual teaching text for monolingual children who want to learn Kaqchikel (native literature creation).
Est # spks	Approx 405,000 speakers (one of 4 majority lgs of Guatemala). Acquired by children in rural areas only.
Total Pop	
Lg Prgm	Academy of Mayan Lgs of Guatemala supports local committee which runs 64 Kaqchikel schools for children and some adult programs.
Othr Pro Act	
Major Doc	1) Proyecto Lingüístico Francisco Marroquín (PLFM) dictionary; 2) SIL dictionary; 3) Coordinadora Cakchiquel para el Desarrollo Integral (COCADI) dictionary; 4) Peace Corps dictionary; 5) Descriptive grammar and prescriptive and writers manual Oxlajuuj Keej Maya' Ajtz'iib' (OKMA); 6) University of Landivar teaching materials. 9/1/95

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Lg . Dlct **Mayan** languages and their dialects of Mexico and Guatemala. **(See appendix)**

Lg Affil Mayan Family.

Fldwrk loc In Mexico with native speakers of some of the Mayan languages primarily of **Guatemala**.

Othr Lg Com Qintana Roo, Chetumal; Chiapas; Campeche; Mexico City (mostly refugees from Guatemala).

Ntr Fldwrk 1) Ethnography including philosophy, education, beliefs, ethnobotany, etc.).

Est # spks

Total Pop

Lg Prgm Bilingual programs for Mayan lgs in Chiapas, Tamaulipas, Veracruz, Tabasco in Mexico. National Institutes in Guatemala.

Othr Pro Act

Major Doc 1) Eleanor Frankle's article: "Cozumel. Algunas Observaciones Etnicas, Linguisticas y Sociolinguisticas." Antropologia (Boletin Oficial del Instituto Nacional de Antropología e Historia. Nueva época, Num 6. Nov.-Dec., 1985. 2/17/96

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Itnly (1)
Faetar of Francoprovençal, Romance Lg Family
[Naomi Nagy <nagy@unagi.cis.upenn.edu>]

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Lg - Dlct	**Faetar**, a dialect of Francoprovençal
Lg Affil	Romance Lg Family
Fldwrk loc	Faeto, in the province of Foggia, Central **Italy** [1992, 1993, 1994]
Othr Lg Com	A very similar dialect in the neighboring village of Celle. Small communities in the USA (Rochester, NY; Bridgeport, CT; Cleaveland, OH; Philadelphia, PA), **(Continued in appendix "Other Lg Com)**
Ntr Fldwrk	Goals: 1) Data collection for a lg description; 2) Collection of recordings and transcriptions (60 hrs of recorded speech with transcriptions, done); 3) Collection of data on lg change due to lg contact (e.g., geminates due to Italian, variable deletion of final segments due to Apulian, &lexicon) Needed: standardization of orthography and a pedagogical grammar.
Est # spks	Virtually all (800 in Faeto), and they are bi- or trilingual (with standard Italian and the Apulian regional dialect). Acquire the lg at home and learn Italian at school.
Total Pop	Approx. 800 in Faeto.
Lg Prgrm	There is a movement to use Faetar as the school lg, as soon as materials can be constructed.
Othr Pro Act	Quarterly journal *Il Provenzale*, with some articles in Faetar/Italian trans.; street signs in Faetar, a chorus (some songs in Faetar)
Major Doc	Naomi Nagy has recorded numerous stories, songs, jokes, and discussions in Faetar. **(See appendix "Major Documentation")** 9/1/95

Japan (1)

Hokkaido Ainu, lg isolate [George Simeon <giselle@msn.com>]

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Lg . Dlct Hokkaido Ainu. **(See appendix)**

Lg Affil Isolate

Fldwrk loc Hokkaido, **Japan** [Summer 1967; 1970-1]

Othr Lg Com

Ntr Fldwrk 1) A comprehensive grammar of Hokkaido Ainu.

Est # spks None. The last speaker passed away a few years ago.

Total Pop 15,000 in Japan & 1,500 in Russia (Grimes 1988: 539).

Lg Prgrm Some attempts at community lg programs

Othr Pro Act

Major Doc 1) Shirō Hattori's Ainu Dialect Dictionary; 2) Kyōsuke Kindaichi has done a great deal of work (Note by AYY).
9/9/95

Mexico (11)

Azoyú Tlapanec, Tlapanecan Lg Family [Søren Wichmann <soeren@cphling.dk>]

Coatzospan Mixtec, Mixtecan, Oto-Manguean [Priscilla Small <pris.small@sil.org>]

Kiliwa, Yuman Lg Family [Mauricio Mixco]

Kʷ'aɬ, Yuman Lg Family [Mauricio Mixco]

Mocho, Mayan Lg Family [Laura Martin <l.e.martin@csuohio.edu>]

Pa'ipai, Yuman Lg Family [Mauricio Mixco]

Pima of Ónavas, Uto-Aztecan Family [Kenneth Hale <klhale@mit.edu>]

Potosino of Huastec, Mayan Lg Family [Barbara Edmonson]

Southeastern Tepehuán, Uto-Aztecan Lg Family [Thomas Willett <tom.willett@sil.org>]

Texistepec Popoluca, Mixe-Zoquean Lg Family [Søren Wichmann <soeren@cphling.dk>]

Tzeltal of Tenejapa, Mayan Lg Family [Luisa Maffi <maffi@cogsci.berkeley.edu>]

(Mayan dialects of Mexico and Guatemala [Eleanor Frankle])

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Lg . Dlct	**Azoyú Tlapanec. (See appendix)**
Lg Affil	Tlapanecan Family.
Fldwrk loc	Guerrero, **Mexico**.
Othr Lg Com	Various communities in Guerrero, Mexico.
Ntr Fldwrk	1) Aspects of grammar including verbal inflections (5 articles forthcoming), 2) Dictionary, 3) Joking style, 4) Sociolinguistics.
Est # spks	Approx. 800, including about 30 children. All speakers are bilingual (Spanish). Acquisition of the lg by children is limited.
Total Pop	The population of Tlapaneco was estimated as 14,000-16,000 (Voegelin & Voegelin 1977) and 40,000 (Grimes 1988: 31, SIL 1977 figure)
Lg Prgrm	
Othr Pro Act	None.
Major Doc	1) Poul Radin's short article (poor). 9/9/95

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Lg . Dlct	**Coatzospan Mixtec**, the northeasternmost variety of Mixtec.
Lg Affil	Mixtecan, Oto-Manguean.
Fldwrk loc	This is a linguistic island in the Sierra Mazateca of Oaxaca, Mexico surrounded by Mazatec and Cuicatec, related Oto-Manguean languages [since 1963].
Othr Lg Com	Rancherias in the Coatzospan municipality (San Isidro Coatzospan, Agua Español, Loma de la Plaza); also small groups of speakers in Mexico City (Colonia del Sol), Puebla (Colonia Concepción La Cruz) & Oaxaca.
Ntr Fldwrk	Basic phonological and grammatical analysis done. Work in progress include: 1) Tone analysis, 2) Transcription and publication of native texts, 3) Mixtec-Spanish dictionary, 4) Practical grammar, 5) Literacy materials, 6) Old Testament summary, 7) New Testament.
Est # spks	Nearly all 4,000 speak the lg. Most of the younger generation also speak Spanish due to the presence of government schools in the area. Yes. Coatzospan Mixtec is used in the home and in town meetings.
Total Pop	Approx. 4,000.
Lg Prgrm	
Othr Pro Act	
Major Doc	Comparative Mixtec dialect studies using data from Coatzospan have been done by Evangelina Arana, Maurice Swadesh, Cora Mak, Robert Longacre, Katharine Josserand, Henry Bradley, and Barbara Hollenbach. **(See appendix)** 9/25/95

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Lg . Dlct	**Kiliwa**. [The Kiliwa people share Santa Catarina Community with Paʔipai and K"ʔaf people. Intermarriage among these is common.]
Lg Affil	Yuman Family.
Fldwrk loc	Lower California; **Mexico**. The community is located to the southeast of the Valle de la Trinidad in the foothills of the San Pedro Mártir Range.
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection. All as reference works for scholars and communities.
Est # spks	Fewer than 10.
Total Pop	40.
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Mixco, Mauricio. 1971. Kiliwa. UCBerkeley Dissertation; 2) Mixco, Mauricio. Sketches of Kiliwa, Pa'ipai, Kw'af (in press) with Archivo de Lengas Indigenas (ed. by Yolanda Lastra, Colegio de México); 3) Mixco, Mauricio. Kiliwa Texts & Kiliwa Dictionary (available through Anthrpological Papers, University of Utah Press). 9/11/95

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Lg . Dlct	**K"'af**. [The K"ʔaf people share Santa Catarina Community with Paʔipai and Kiliwa people. Intermarriage among these is common.]
Lg Affil	Yuman Family.
Fldwrk loc	Lower California, **Mexico**.
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection. All as reference works for scholars and communities.
Est # spks	5 (in Mexico).
Total Pop	20+ (?).
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Sketches of Kiliwa, Paʔipai, K"ʔaf (in press) with Archivo de Lenguas Indigenas (ed. by Yolanda Lastra, Colegio de México). 9/11/95

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Lg . Dlct	**Mocho** (Motozintleco); closest dialect is the TuzatAn variety (also moribund)
Lg Affil	Mayan Family, Q'anjob'alan Branch
Fldwrk loc	Barrio Guadalupe, Motozintla, Chiapas, **Mexico**. Motozintla is in SE Chiapas close to Guatemalan border.
Othr Lg Com	Mocho only in the barrios around Motozintla.
Ntr Fldwrk	1) Text collection (with comentary, linguistic analysis, English translation, and grammatical sketch; under contract to University of Texas Press, NEH funded). Documentation and comparison with Tuzatec variety urgent. Archival of unpublished texts in Martin's Mocho corpus needs to be worked on.
Est # spks	Fewer than 100, all over 50 yrs old. No children are acquiring the lg.
Total Pop	Several hundred identify as Mocho.
Lg Prgrm	
Othr Pro Act	Limited to teaching a few common words and phrases. Some young trying to learn Mocho to obtain teaching positions. Spanish dominant.
Major Doc	1) Kaufman, Terry. 1967ms. Preliminary Mocho Vocabulary; 2) Unpublished work on the TuzatAn variety by Otto Schumann; 3) Ethnolinguistic publications by Perla Petrich; 4) Martin, Laura & Juan Me'ndez Mati'as. 1989. La mala mujer, un cuento mocho. Tlalocan XI: 279-284. **(Continued to appendix)** 9/6/95

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Lg . Dlct	**Pa'ipai**. [The Pa'ipai people share Santa Catarina Community with Kiliwa and K'ʷal people. Intermarriage among these is common.]
Lg Affil	Yuman Family.
Fldwrk loc	Lower California, **Mexico**.
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection. All as reference works for scholars and communities.
Est # spks	200+.
Total Pop	300+.
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Sketches of Kiliwa, Pa'ipai, Kw'al (in press) with Archivo de Lengas Indígenas (ed. by Yolanda Lastra, Colegio de México). 9/13/95

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Lg . Dlct	**Pima of Ónavas**. The language is also known as Pima Bajo (but is not to be confused with the related Mountain Pima of Sarcobu and Yepachic, also known as Pima Bajo).
Lg Affil	Tepiman Subranch, Uto-Aztecan.
Fldwrk loc	Ónavas, Sonora, **Mexico**. East bank of the (upper) Río Yaqui. 1964, 1977.
Othr Lg Com	None during the past 50 years or so.
Ntr Fldwrk	1) To document the lg and determine its linguistic affiliation to its Tepiman relatives, esp. Upper Piman (Tohono O'odham & Akimel O'odham), 2) In 1977, a voc was prepared (Hale et al.) & copies given to the remaining speakers and to the Presidente Municipal of Ónavas.
Est # spks	There were four in 1964, two in 1976, both now deceased. No children acquire the lg.
Total Pop	Approx. 100 residents (down from 1,000 in 1910). The original population is now largely dispersed. Whether dispersed members speak Pima is unknown.
Lg Prgrm	None.
Othr Pro Act	
Major Doc	Tape recordings by John Robert Cornell (1971), stored at the Arizona State Museum, University of Arizona, Tucson, Arizona. **(See appendix)** 2/18/96

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Lg . Dlct	**Potosino** dialect of **Huastec**. Closely related to Veracruzano and Sierra Otomipec Dialects spoken in Tantoyuca, Tantima, Tancoco, Chinampa, Chontla.
Lg Affil	Mayan Family.
Fldwrk loc	South-eastern San Luis Potosí (esp. Aquismón & San Antonio, S.L.P.), **Mexico**.
Othr Lg Com	Tanlajás, Huehuetlán, Tancanhuits, Tampamalón.
Ntr Fldwrk	1) Grammar, 2) Text collection.
Est # spks	68,733 in San Luis Potosí (1990 Mexican census), 11.8% of which monolingual. Twice as many women as men monolingual. Veracruz 46,897 (6.6% of which monolingual).
Total Pop	
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Edmonson, Barbara W. 1988. A Descriptive Grammar of Huastec (Potosino Dialect). PhD dissertation. Tulane University; 2) Texts (Tlalocan) published.; 3) Articles in press (IJAL) and in preparation; 4) Terrence Kaufman is working on a Huastec Dictionary; **(Cont'd in appendix)** 9/13/95

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Lg . Dlct	**Southeastern Tepehuán**.
Lg Affil	Uto-Aztecan Family, Sonoran Branch, Tepiman Group.
Fldwrk loc	Municipio de El Mezquital, Estado de Durango, Mexico (SE corner of Durango State, approx. where Continental Divide crosses Tropic of Cancer).
Othr Lg Com	Adjacent to Huichol and Cora in neighboring States to south.
Ntr Fldwrk	1) Grammar (published 1991), 2) Dictionary (in progress), 3) Text collection, 4) Literacy materials (1983), 5) Bible translation.
Est # spks	20,000-30,000 speakers, mostly monolingual or partially bilingual with Spanish. Few fully bilingual speakers. Language is still spoken at home.
Total Pop	
Lg Prgm	Language is taught in primary grades by State Department of Indian Education.
Othr Pro Act	The National Institute of Adult Education has just begun a program of teaching adults to read and write Tepehuan.
Major Doc	1) Willett, Elizabeth. 1982. Reduplication and Accent in Southeastern Tepehuán. IJAL 48: 168-184, 2) Willett, Thomas, Elizabeth Willett, José Trinidad Solis de la Couz, Cornelio Ramirez Solis. 1983. Leyendo y escribiendo tepehuán. Mexico City: Instituto Linguístico de Verano, **(Continued in appendix)** 9/5/95

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Lg . Dlct	**Texistepec Popoluca**; related are Oluta Popoluca, Sayula Popoluca, and Sierra Popoluca.
Lg Affil	Mixe-Zoquean Family (Penutian).
Fldwrk loc	Veracruz, **Mexico**.
Othr Lg Com	Oluta Popoluca (100-200) in Southeastern Veracruz, Sayula Popoluca (6,000) in Veracruz, and Sierra Popoluca (25,000) also in Veracruz (Grimes 1988: 29).
Ntr Fldwrk	1) Phonological study (published), 2) Text collection, 3) Dictionary, 4) Short grammatical study including morphology (in preparation).
Est # spks	Less than 400, the youngest 15 yrs old, a douzen or so 20-30, and the majority elders. Children are not acquiring the lg. Very few husehold use the lg in everyday communication.
Total Pop	2,000 (Grimes 1988: 30).
Lg Prgm	None.
Othr Pro Act	Adults who are curious learn the lg but not attain fluency. No preservation activities.
Major Doc	1) Vocabulary (in manuscript) by SIL members; 2) List of numerals (19th century work) 9/6/95

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Lg . Dlct	**Tzeltal of Tenejapa**
Lg Affil	Mayan Family.
Fldwrk loc	Highland Chiapas, Mexico.
Othr Lg Com	Tzeltal also spoken in 174 other communities, Chiapas, Mexico (Guaquitepec, Tenango, Situlá, Bachajón, Chilón, Yahjalón, Petalcingo, Altamirano, Sibacá, **(Cont'd in appendix "Other Lg Com")**
Ntr Fldwrk	(Past) 1) Tenejapa Tzeltal lexicography & lexical semantics, 2) Ethnosymptomatology (lg of signs & symptoms of illness), 3) Affect verbs, 4) Text collection & Analysis. (Future) 1) Tenejapa Tzeltal dictionary, 2) Relationships btw lg loss & loss of traditional knowledge. Needed: Up-to-date phonology &morphology. Esp. syntax needed.
Est # spks	258,153 (Mexican census of 1990). 1st indigenous lg of Chiapas for many, and still learned by children, but Spanish is emphasized in education, media, & public communication.
Total Pop	3,210,496 (Total population of Chiapas) **(Continued in appendix "Total Population No.").**
Lg Prgm	A smattering of bilingual education in primary schools, but ineffective and inefficient.
Othr Pre Act	No systematic preservation activities. Tzeltal in general shows signs of lg shift in progress.
Major Doc	**(See appendix "Major Documentation")**

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Lg . Dlct	**Mayan** languages and their dialects of Mexico and Guatemala. **(See appendix)**
Lg Affil	Mayan Family.
Fldwrk loc	In Mexico with native speakers of some of the Mayan languages primarily of **Guatemala.**
Othr Lg Com	Quintana Roo, Chetumal; Chiapas; Campeche; Mexico City (mostly refugees from Guatemala).
Ntr Fldwrk	1) Ethnography including philosophy, education, beliefs, ethnobotany, etc.).
Est # spks	
Total Pop	
Lg Prgm	Bilingual programs for Mayan lgs in Chiapas, Tamaulipas, Veracruz, Tabasco in Mexico. National Institutes in Guatemala.
Othr Pre Act	
Major Doc	1) Eleanor Frankle's article. "Cozumel: Algunas Observaciones Etnicas, Linguisticas y Sociolinguisticas." Antropologia (Boletin Oficial del Instituto Nacional de Antropología e Historia. Nueva época, Núm 6. Nov.-Dec., 1985. 2/17/96

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Nicaragua (1)
Ulwa (Southern Sumu), Misumalpan (Miskitu-Sumu-Matagalpa) [Kenneth Hale <klhale@mit.edu>]

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Lg . Dlct **Ulwa** (Southern Sumu).

Lg Affil Sumu Sub-branch of Misumalpan (Miskitu-Sumu-Matagalpa).

Fldwrk loc Karawala, near mouth of the Río Grande de Matagalpa, in the Región Autónoma Atlántico Sur) of **Nicaragua**. Field work by Ken Hale (1988-94), Thomas Green (1991-96).

Othr Lg Com A few speakers live at nearby Kara. Occasional reports are heard of speakers in more inland locations, upriver, in areas once more densely occupied by Ulwa people.

Nlr Fldwrk The project began in response to a request in the 1980's for a lg program for Ulwa roughly on the model of an existing program for the Rama people initiated in 1984 by the Sandinista Gov't and developed by the linguist Colette Craig and her Rama colleagues. **(See appendix "Nature of Fieldwork")**

Est # spks Approximately 400. A handful of children who speak Ulwa. For all intents & purposes, it is no longer learned by children. Most acquire Miskitu as their 1st lg now.

Total Pop Approx. one half the population of Karawala which, since the early 1950's, has spoken Miskitu as the primary language.

Lg Prgrm

Othr Pre Act **(See appendix "Other Preservation Activities")**

Major Doc The primary earlier sources for Ulwa are Conzemius (1910) and Lehmann (1929). These are excellent works, consisting of vocabulary, grammatical notes and sentences, and they are consulted heavily by the Ulwa Language Committee, especially for words now forgotten. **(See appendix "Major Documentation")** 2/18/96

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Pakistan (6)
Dameli, Dardic or Nuristani, Indo-Iranian [Ken Decker <ken.decker@sil.org>]
Kalasha, Dardic, Indo-Iranian [Ken Decker]
Khowar, Dardic, Indo-Iranian [Ken Decker]
Phalura, Dardic, Indo-Iranian [Ken Decker]
Ushojo, Dardic, Indo-Iranian [Ken Decker]
Yidgha, Pamir, Indo-Iranian [Ken Decker]

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Lg . Dlct **Dameli.**

Lg Affil Dardic or Nuristani Group, Indo-Iranian.

Fldwrk loc Southern Chitral District, Northwestern **Pakistan** (1989-1990).

Othr Lg Com

Ntr Fldwrk 1) Sociolinguistic survey (language vitality).

Est # spks Approx. 5,000. The Dameli are a very small group proportional to the district. Yes. Children and some women are monolingual.

Total Pop 1,500 (Grimes 1988: 572, citing the 1969 figure).

Lg Prgrm None, but they live in a very remote location and they have very little contact with outsiders.

Othr Pro Act

Major Doc Very little is known of Dameli. 1) Morgenstierne, Georg. 1942. Notes on Dameli: a Kafir-Dardic language of Chitral. Norsk Tidsskrift for Sprogvidenskap 12: 115-198. The series of five volumes of the Sociolinguistic Survey of Northern Pakistan gives sociolinguistic data, including language vitality on 26 languages. 9/20/95

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Lg . Dlct **Kalasha**.

Lg Affil Dardic Group, Indo-Iranian.

Fldwrk loc Southern Chitral District, Northwestern **Pakistan** [1989-1990]

Othr Lg Com

Ntr Fldwrk 1) Sociolinguistic survey (language vitality).

Est # spks Approx. 5,000. The Kalash are a very small group proportionally in the district. Yes. Most children are monolingual; most women have only minimal proficiency in Khowar. A few men are monolingual.

Total Pop 2,500 (Grimes 1988: 573, citing the 1985 figure).

Lg Prgrm

Othr Pro Act Yes. Because the Kalash are the last non-Islamic group in Central Asia, there are numerous lg & culture preservation projects.

Major Doc 1) Morgenstierne, Georg. 1973. Indo-European Frontier Languages Vol. 4 (Kalasha). Cambridge: Harvard University Press. There may be more recent work by E. Bashir or R. Trail. **(Continued in appendix)** 9/20/95

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Lg . Dlct **Khowar** (Chitrali).

Lg Affil Dardic Group, Indo-Iranian.

Fldwrk loc Chitral District, Northwestern Pakistan; Peshawar, Northwest Frontier Province, **Pakistan** [1986-1990].

Othr Lg Com Rawalpindi, Islamabad, Karachi, Pakistan.

Ntr Fldwrk 1) Sociolinguistic survey (language vitality).

Est # spks Approx. 200,000 (majority in the district, minority status nationally). Most children and women (and many men) are monolingual.

Total Pop 250,000+ (Grimes 1988: 574).

Lg Prgrm

Othr Pro Act Orthography has been developed and language preservation activities are beginning to be formed.

Major Doc 1) Decker, Kendall D. 1992. Sociolinguistic Survey of Northern Pakistan. Vol. 5 (Languages of Chitral). Islamabad: National Institute of Pakistan Studies and Summer Institute of Linguistics. **(Continued in appendix)** 9/17/95

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Lg . Dlct	**Phalura** (Dangarik).
Lg Affil	Dardic Group, Indo-Iranian.
Fldwrk loc	Southern Chitral District, Northwestern **Pakistan** [1989-1990]
Othr Lg Com	The related variety of Sawi (Sau) was spoken in Sau, Afghanistan in the Kunar Valley of Northeastern Afghanistan. Since Afghan War little is known of the survival of this group.
Ntr Fldwrk	1) Sociolinguistic survey (language vitality).
Est # spks	8,000-9,000. Minority even in their district, but good vitality in most villages. Many children and women (and some men) are monolingual
Total Pop	2,500 (Grimes 1988: 575, citing the 1964 figure).
Lg Prgrm	None.
Othr Pro Act	
Major Doc	1) Morgenstierne, Georg. 1941. Notes on Phalūra: an unknown Dardic Language of Chitral (Skrifter utgitt av det norske videnskaps-akademi Oslo II. hist.-filos-klasse. 1940:5). Oslo. Jacob Dybwad; (**Continued in appendix**) 9/20/95

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Lg . Dlct	**Ushojo**.
Lg Affil	Dardic Group, Indo-Iranian.
Fldwrk loc	Swat Valley, North Central **Pakistan** (1989-1990).
Othr Lg Com	
Ntr Fldwrk	1) Sociolinguistic survey (language vitality) (**See appendix**)
Est # spks	Approx. 2,000 (vitality judged as poor). They are a very small group proportional to neighboring groups. Children acquire the lg, but they also learn Pashto and Torwali.
Total Pop	Difficult to estimate. When families shift to another lg., they identify with the other lg group. Also other lg speakers live among the Ushojo.
Lg Prgrm	None.
Othr Pro Act	
Major Doc	1) Decker, Sandra J. 1992. Ushojo. In Sociolinguistic Survey of Northern Pakistan. Vol. 1 (Languages of Kohistan), ed. by Calvin R. Rensch, Sandra J. Decker, and Daniel G. Hallberg. Islamabad: National Institute of Pakistan Studies and Summer Institute of Linguistics. 9/20/95

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Lg . Dlct **Yidgha** (Munji-Yidgha).

Lg Affil Pamir Group, Indo-Iranian.

Fldwrk loc Lutkuh Valley, Western Chitral District, Northwestern **Pakistan** [1989-1990].

Othr Lg Com The related Munji was spoken in the Munjan Valley in Northeast Afghanistan. Since the Afghan War, some have moved to Chitral and elsewhere. Little is known of the survival of this group.

Ntr Fldwrk 1) Sociolinguistic survey (language vitality).

Est # spks Approx. 5, 000-6,000. A small minority even in their District.

Total Pop 14,000 in Afghanistan (Grimes 1988: 575).

Lg Prgrm No preservation activities.

Othr Pro Act

Major Doc Very little on Munji or Yidgha but see: 1) Grjunberg, A.L. 1968. Lgs of the Eastern Hindu Kush. Moscow: Nauka; 2) Morgenstierne, Georg 1938. Indo-Iranian Frontier lgs. Vol II (Iranian Pamir Lgs). Oslo: Instituttet for Sammenlignende Kulturforskning; **(Continued in appendix)** 9/20/95

Perú (2)
Jaqaru, Jaqi (M.J. Hardman)
Kawki, Jaqi (M.J. Hardman)

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Lg . Dlct	Jaqaru.
Lg Affil	Jaqi (languages include Jaqaru, Aymara, Kawki). [Kawki is also endangered, but Aymara is not.]
Fldwrk loc	Tupe, Aysha, and Quilqa in the Yauyos province of the Department of Lima, Perú.
Othr Lg Com	Spoken in urban centers by immigrants (especially Huancayo, Cañete, and Lima.
Ntr Fldwrk	1) Grammatical description, 2) Comparison of related languages, 3) Text collection and transcription. Needed: Historical reconstruction.
Est # spks	Approx. 5,000. Recent political difficulties have reduced the Tupe pop to less than 1,000. In cities groups continue to speak the lg. but children learn Spanish. Tupe, Aysha, & Quilqa, they learn Jaqaru & Spanish.
Total Pop	
Lg Prgrm	Prior to current political difficulties, the school in Tupe began bilingual education which included literacy in Jaqaru.
Othr Pro Act	
Major Doc	None. There are two Tupinos who are currently doing serious work on the language. Hardman has compiled a bibliography. 12/22/95

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Lg . Dlct	Kawki.
Lg Affil	Jaqi (languages include Jaqaru, Aymara, Kawki).
Fldwrk loc	Cachuy, Canchán, and Chavin in the Yauyos province of the Department of Lima, Perú.
Othr Lg Com	Spoken by immigrants to the cities, especially Cañete and Lima.
Ntr Fldwrk	1) Grammatical description, 2) Comparison of related languages, 3) Text collection and transcription. Needed: Historical reconstruction.
Est # spks	Fewer than 20 (fewer than a half dozen are fluent). The yungest speaker is about 50 and the only one in his generation. No children acquire the lg.
Total Pop	
Lg Prgrm	The youngest speaker (about 50 years old) wants to teach the lg to the children in Cachuy.
Othr Pro Act	Hardman have supplied the youngest speaker with primers (stories from his grandmother and other stories that Hardman collected).
Major Doc	None. [Hardman has compiled a bibliography.] 12/22/95

Russia (3)
Russia (1)
Western Itelmen, Chukchi/Koryak (?) [Jonathan Bobaljik <bobaljik@mit.edu>]
Daghestan Republic (2)
Ginux (Dido), Tsezic group, Nakh-Daghestanian Lg Family [Ramazan Rajabov <rajabov@chaph.usc.edu>]
Tsez, Tsezic group, Nakh-Daghestanian Lg Family [Bernard Comrie <comrie@bcf.usc.edu>, Maria Polinsky <polinsky@bcf.usc.edu>, Ramazan Rajabov <rajabov@chaph.usc.edu>]

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Lg . Dlct **Western Itelmen** (a.k.a. Kamchadal); North and South dialects: Sedanka and Khairuzovo. **(See appendix)**

Lg Affil Chukchi/Koryak (controversial)

Fldwrk loc Kovran/Sedanka villages in Tigil Region of Kamchatka Peninsula, **Russian Far East**.

Othr Lg Com Northern dialects: Sedanka, Tigil, Palana (Kamchatka); Southern dialects: Kovran, Khairuzovo, Palana, Petropavlovsk-Kamchatskij (Kamchatka).

Nhr Fldwrk 1) Theoretical analysis of morphology and phonology, 2) Educational materials for schools (collection, translation into Russian of traditional and contemporary narratives (in collaboration with researchers on Kamchatka). Needed: Dictionary & Grammar important, but a slim chance of being used by the Itelmen people as lg maintenance tools.

Est # spks Less than 60 speakers; youngest speaker about 50 yrs old. No children are acquiring the lg.

Total Pop Approx. 1,500 ethnic Itelmen group. All use Russian as daily language of communication.

Lg Prgrm Some efforts to teach the lg in kindergarten and primary schools supported, in principle, by the government.

Othr Pro Act Lack of funding, materials, teachers, enthusiasm on the part of the people. True of all Itelmen population.

Major Doc 1) Volodin, A.P. 1976. Itel'menskij jazyk (The Itelman Language). St. Petersburg. [In Russian, Grammar]; 2) Volodin, A.P. and K.N. Khalomova. 1989. Itel'men-Russian-Itel'men Dictionary [approx. 4,000 words]. 9/5/95

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Lg . Dlct	**Ginux** (also Ginukh, Hinuq). Ginux is the lg name, ethnic group name, and village name.
Lg Affil	Tsezic (Tsezian) group, Nakh-Daghestanian (Northeast Caucasian) Family.
Fldwrk loc	Ginux, the Tsunta District of **Daghestan Republic, Russia** [1994-5].
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary.
Est # spks	300 active speakers who live in the village of Ginux. 200 living outside the village speak it to a certain extent. In the Ginux village, children are acquire the lg.
Total Pop	500?
Lg Prgrm	
Othr Pro Act	
Major Doc	1) A description of Ginux Language by E.A. Bokarev, 1959, 1967, 2) A description of Ginux Dialect of Tsez by E.A. Lomtadze, 1963 9/9/95

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Lg . Dlct	**Tsez** (or Dido). The language is undergoing significant influence of Avar and Russian.
Lg Affil	Tsezic (Tsezian) group, Nakh-Daghestanian (Northeast Caucasian) Family, around the southern Sulak River.
Fldwrk loc	Tsunta district of **Daghestan Republic, Russia** [1992-5, Rajabov]; USC with a graduate student who is a native speaker of Tsez [1992-present, comrie & Polinsky].
Othr Lg Com	Lowland Daghestan (in and around Makhachkala).
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection. The major bulk of data collected. Needed: 1) Dialect differences, 2) Male & female speech.
Est # spks	About 8,000 in the highlands, where the lg is best preserved; about 7,000 in the lowlands who speak the lg to some extent. Children in the community learn the lg, but the lg is not taught at school.
Total Pop	See above.
Lg Prgrm	
Othr Pro Act	Local cultural events.
Major Doc	1) A short sketch by E. A. Bokarev (1959) [in Russian]; 2) A description by D.S. Imnayshvili (1963) [in Russian], includes several texts; 3) A description of verbal morphology by R. Rajabov (1993) [in Russian]; 4) A grammatical sketch by Comrie, Polinsky, and Rajabov (in press) [English]. 9/9/95

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USA (33)

Absentee Shawnee, Algonquian Lg Family [Bruce Pearson <blpears@univscvm.csd.sc.edu>]
Acoma dialect of Keresan, Lg isolate [Hilaire Valiquette]
Caddo, Caddoan Lg Family [Wallace Chafe <chafe@humanitas.ucsb.edu>]
Central Pomo, Pomoan Lg Family [Marianne Mithun <mithun@humanitas.ucsb.edu>]
Choinimne, Yokuts Lg Family [Robert Lyday]
Chukchansi Yokuts, Yokuts Lg Family [Robert Lyday]
Cochiti dialect of Keresan, Lg isolate [Hilaire Valiquette]
Costanoan languages, Utian Lg Family [Catherine Callaghan]
Delaware, Algonquian Lg Family [Bruce Pearson <blpears@univscvm.csd.sc.edu>]
Eastern Band Cherokee, Iroquoian Lg Family [Robin Sabino <sabinro@auburn.mail.edu>]
Havasupai, Yuman Lg Family [Akira Yamamoto <akira@ukans.edu>]
Hwalbay (Hualapai), Yuman Lg Family [Akira Yamamoto <akira@ukans.edu>]
Karuk, Hokan (?) [William Bright <brightw@spot.colorado.edu>]
Kechayi of Chukchansi, Penutian [Robert Lyday]
Laguna dialect of Keresan, Lg isolate [Hilaire Valiquette]
Loyal Shawnee, Algonquian Lg Family [David Costa <dcosta@garnet.berkeley.edu>]
Maliseet-Passamaquoddy, Algonquian Lg Family [Karl van Duyn Teeter <kvt@husc.harvard.edu>]
Mandan, Siouan Lg Family [Mauricio Mixco]
Miwok languages, Utian Lg Family [Catherine Callaghan]
Mohawk, Iroquoian Lg Family [Marianne Mithun <mithun@humanitas.ucsb.edu>]
Montana Salish (Flathead), Salishan Lg Family [Sarah Thomason <sally@isp.pitt.edu>]
Oneida, Iroquoian Lg Family [Bryan Gick <bgick@minerva.cis.yale.edu>]
San Felipe dialect of Keresan, Lg isolate [Hilaire Valiquette]
Santa Ana dialect of Keresan, Lg isolate [Hilaire Valiquette]
Santo Domingo dialect of Keresan, Lg isolate [Hilaire Valiquette]
Seneca, Iroquoian Lg Family [Wallace Chafe <chafe@humanitas.ucsb.edu>]
Snchitsu'umshstsn (Coeur d'Alene), Salish Lg Family [Gary Palmer <gbp@nevada.edu>]
Tuscarora, Iroquoian Lg Family [Marianne Mithun <mithun@humanitas.ucsb.edu>]
Wiyot, Algic [Karl van Duyn Teeter <kvt@husc.harvard.edu>]
Wyandotte, Iroquoian Lg Family [Bruce Pearson <blpears@univscvm.csd.sc.edu>]
Yavbé of Yavapai, Yuman Lg Family [Akira Yamamoto <akira@ukans.edu>]
Yuchi, Lg isolate [Mary Linn <mslinn@lark.cc.ukans.edu>]
Zia dialect of Keresan, Lg isolate [Hilaire Valiquette]

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Lg . Dlct	**Absentee Shawnee**.
Lg Affil	Algonquian Family.
Fldwrk loc	Shawnee, Oklahoma, USA.
Othr Lg Com	Loyal Shawnee in White Oak and Vinita areas, Oklahoma, and Eastern Shawnee in northeast Oklahoma.
Ntr Fldwrk	1) Grammar, 2) Dictionary.
Est # spks	Approx. 250 in Shawnee, Oklahoma.
Total Pop	2,000+ (Peter R. hacker in Davis 1994: 585).
Lg Prgrm	
Othr Pre Act	
Major Doc	1) Andrews, Kenneth R. 1994. Shawnee Grammar. PhD dissertation. Columbia, SC: Univ. of South Carolina [detailed morphological description]; **(Continued in appendix)** 2/17/96

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Lg . Dlct	**Acoma** dialect of **Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	Language Isolate.
Fldwrk loc	Acoma Pueblo, New Mexico, USA.
Othr Lg Com	
Ntr Fldwrk	
Est # spks	1930 (i.e., 50% of the total population speak the lg). Age 30 may be the break point. Children are not acquiring the lg.
Total Pop	3860 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	There was a bilingual program at Sky City Elementary School, but it ended about 8 years ago.
Othr Pre Act	
Major Doc	1) Miller (1965) [his "surface" forms are totally reliable; he has several texts]. 2) Maring (1967) [not well done; sloppy in transcription and unimaginative in analysis]. 9/13/95

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Lg . Dlct	**Caddo.**
Lg Affil	Caddoan Family.
Fldwrk loc	Caddo County, Oklahoma, USA. [1960s, and currently conducting field work].
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Texts.
Est # spks	Approx. 25, varying in competence.
Total Pop	3,371 in 1992 (Carol Hampton in Davis 1994: 89-90).
Lg Prgrm	Sporadic adult language appreciation classes. Community interest is limited to a few individuals.
Othr Pro Act	
Major Doc	1) Chafe, Wallace. In press. "Caddo." In Southeastern Languages, ed. by Heather Hardy and Janine Scancarelli. 9/17/95

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Lg . Dlct	**Central Pomo (See appendix)**
Lg Affil	Pomoan Family.
Fldwrk loc	Three communities (Hopland and Yokaya rancherias near Ukiah, Point Arena-Manchester on the coast) in Northern California, USA.
Othr Lg Com	None
Ntr Fldwrk	1) Full documentation of the language, 2) Narrative and conversation grammar, 3) Dictionary, 4) Text collection.
Est # spks	Fewer than a handful of speakers remaining. Children are not acquiring the lg.
Total Pop	The 1990 census shows 4,766 as identifying themselves as Pomo.
Lg Prgrm	None
Othr Pro Act	
Major Doc	Articles by Mithun 9/11/95

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Lg . Dlct	**Choinimne** (Yokuts).
Lg Affil	Yokuts Family (Penutian).
Fldwrk loc	Sierra Nevada foothills; Coarsegold/Oakhurst, California (41 miles north of Fresno, 15 miles south of Yosemite National Park; 2,000 - 3,000 feet), USA.
Othr Lg Com	Fresno, Clovis, Cold Springs Rancheria (Tollhouse, CA).
Ntr Fldwrk	Immediate documentation of the lg with speakers: Leona Davis (63), May Davidian (66), Annie Alec (68), May Lewis (70), all of Fresno, John Davis (65) of Clovis, CA; Dan Davis (59) of Cold Springs Rancheria, Tollhouse, CA. Needed: Documentation work with spkrs, including a basic grammatical sketch. Lexicon is especially needed
Est # spks	Approximately 6 plus (see above). No children acquire the lg.
Total Pop	Approximately 300. The tribe has been trying to get recognized, but unsuccessful.
Lg Prgm	No.
Othr Pro Act	No.
Major Doc	1) Frank Lafta's lexicon (available only from Yosemite National Park Library) [inadequate transcription]; **(Continued in appendix)** 2/18/96

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Lg . Dlct	**Chukehansi** (Yokuts), Northern Valley Yokuts, Hill Division. Dialects of this lg are Dumna and Kechayi. Kechayi has just one elderly speaker now.
Lg Affil	Yokuts Family (Penutian).
Fldwrk loc	Oakhurst/Coarsegold, California; the Sierra Nevada foothills, Fresno River drainage (41 miles north of Fresno, about 15 miles south of Yosemite National Park), USA.
Othr Lg Com	One very old speaker lives in Santa Rosa. There is at least one in Fresno/Madera area in the Central Valley.
Ntr Fldwrk	Tribal goals: 1) Dictionary, 2) Practical orthography, 3) Simple phrase book. Researcher's (Lyday) goals: 4) Basic structure (phonology, morphology, syntax); 5) Dialect relationships, 6) Borrowing and inter-family relationships.
Est # spks	Approx. 5+ (54 yrs old, 67, 70, 81, 91) speakers who are recapturing their knowledge of the lg. Another 12 semi-spkrs with voc knoweldge. Some children are learning some vocabulary.
Total Pop	100 (Chukchansi), 200-300 (Cha'numni), 250-300 (Wukchumni), 400 (Tachi). 4 major tribes (Lorrie A. Planas in Davis 1994: 712-714).
Lg Prgm	
Othr Pro Act	Tribal lg project.
Major Doc	**(See appendix)** 2/16/96

Inf by	Hilaire Valiquette
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Lg . Dlct	**Cochiti dialect of Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	Language Isolate.
Fldwrk loc	Cochiti Pueblo, New Mexico, USA.
Othr Lg Com	
Ntr Fldwrk	1) Text collection. There may be more work as the Tribal language preservation project becomes a reality.
Est # spks	525 (i.e., 50% of the total population speak the lg). Age 30 may be the break point. Children are not acquiring the lg
Total Pop	1050 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	The lg is taught at Cochiti Elementary School as a second language, but the program is currently weak.
Othr Pre Act	Beginnings of a pueblo-wide preservation project.
Major Doc	1) Boas has some unpublished texts (around 20) and word lists [available from the American Philosophical Society Library; these are better quality than his Laguna work]. 9/13/95

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Lg . Dlct	**Costanoan** languages. All extinct. **(See appendix)**
Lg Affil	Utian Family. Utian is Miwok-Costanoan, supposedly Penutian.
Fldwrk loc	[Originally in central California coast from San Francisco Bay to Point Sur south of Monterey Bay (Linda G. Yamane in Davis 1994: 143), USA]
Othr Lg Com	
Ntr Fldwrk	1) To direct Amy Miller in dictionaries of three fairly well-attested Costanoan languages (Chocheño, Mutsun, and Rumsen), 2) Grammars of Chocheño and Rumsen.
Est # spks	0.
Total Pop	
Lg Prgrm	
Othr Pre Act	
Major Doc	1) Marc Okrand. 1977. Mutsun Grammar. PhD Dissertation. 9/16/95

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Lg . Dlct	**Delaware**. The Delaware, who call themselves Lenape, reside in widely scattered communities primarily in Ontario, Canada (1,000?) and Oklahoma, USA (1,000?).
Lg Affil	Algonquian Family.
Fldwrk loc	Bartlesville, Oklahoma, USA.
Othr Lg Com	Anadarko, Oklahoma where a very few elderly persons speak the lg [Those who call themselves Lenape, are in widely scattered communities primarily in Ontario, Canada (1,000?) and Oklahoma, USA (1,000?)]
Nlr Fldwrk	1) Grammar, 2) Dictionary.
Est # spks	Approx. 6.
Total Pop	1,000? (defined as one-quarter or more blood quantum; Jay Miller in Davis 1994: 169-170)
Lg Prgm	
Othr Pro Act	
Major Doc	1) Blalock, Lucy, Bruce Pearson & James Rementer. 1994. The Delaware language. [88-page guide to noun & verb structures with practice exercises, short texts, & 600-item Eng-Del & Del-Eng lexicon]. 2) Goddard, Ives. 1979. Delaware Verbal Morphology. New York: Garland. [comprehensive account of verbal morphology] 2/17/96

Inf by	Robin Sabino
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Lg . Dlct	**Eastern Band Cherokee** (Kituhwa dialect) of Cherokee (Tsalagi)
Lg Affil	Iroquoian Family.
Fldwrk loc	Alabama, USA.
Othr Lg Com	9,800 in North Carolina (Eastern Band), 122,000+ with the Cherokee Nation of Oklahoma (Duane H. King in Davis 1994: 95).
Nlr Fldwrk	Goals include: 1) To assist the Echota in the reclamation of their cultural lg, 2) To update existing descriptions of Eastern Band Cherokee, 3) To document the structural changes in Eastern Band associated with its vernacularization in Alabama.
Est # spks	The tribe reports that few adults speak the lg in Alabama; 1,000 in North Carolina, 13,000 in Oklahoma (Duane H. King in Davis 1994: 95). No children are learning the lg in Alabama.
Total Pop	The Echota estimate that there are 22,000 Cherokee (not only Echota Cherokee) in Alabama.
Lg Prgm	
Othr Pro Act	Title V Indian Education program since 1970's in Lawrence County, Alabama; and other historical work & cultural development work.
Major Doc	Substantial documentation from the 30s, 40s, 50s, & 60s in archives along with recorded samples of the lg. Little on lg use. 9/1/95

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Lg . Dict	**Havasupai**.
Lg Affil	Upland Branch of Yuman Family.
Fldwrk loc	**Supai, Arizona, USA**. The community is located at the bottom of Havasu Canyon (Grand Canyon to the north). The major contact with outside is through tourists (over 30,000/year).
Othr Lg Com	
Ntr Fldwrk	1) Preparation of teaching materials, 2) Teacher training.
Est # spks	500+ (close to 100% of the population). Children are acquiring the lg.
Total Pop	565 (in 1994).
Lg Prgrm	Tribally controlled Contract School offers bilingual education.
Othr Pro Act	
Major Doc	1) Hinton, Leanne. 1984 (1977). Havasupai songs: a linguistic perspective. Gunter Narr Verlag Tubingen, 2) other articles by Hinton. 9/20/95

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Lg . Dict	**Hwalbáy** (Hualapai, Walapai).
Lg Affil	Upland Branch of Yuman Family.
Fldwrk loc	Hualapai Indian Reservation, Peach Springs, Arizona, USA.
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection, 4) Preparation of teaching materials, 5) Teacher training. Needed: Discourse and conversational structures.
Est # spks	Approx. 1,000 (about 50% of the total population). Some children are acquiring the lg.
Total Pop	1,872 (in 1993).
Lg Prgrm	Active bilingual education program in schools (K-8) headed by Mrs. Lucille J. Watahomigie.
Othr Pro Act	
Major Doc	1) Redden, James E. 1966. Walapai I: Phonology. Intern'l Journal of American Linguistics 32: 1-16; 2) Redden, James E. Walapai II Morphology. Intern'l Journal of American Linguistics 32: 1-16, **(Continued in appendix)** 9/20/95

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Lg . Dlct	**Karuk** (also Karok). (**See appendix**)
Lg Affil	Hokan (tentative).
Fldwrk loc	Humboldt County and siskiyou County, Northwestern California, **USA**. [primarily for dissertation work 1949-50, more recent work on oral narrative].
Othr Lg Com	None.
Ntr Fldwrk	
Est # spks	Approx. 10 fluent speakers, all aged.
Total Pop	4,800 (Julian Lang in Davis 1994: 284).
Lg Prgrm	Community lg program, and children are exposed to the lg
Othr Pro Act	
Major Doc	1) Bright, William. 1957. The Karok Language. University of California Press (includes grammar, texts, and dictionary) 9/6/95

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Lg . Dlct	**Kechayi**, dialect of Chukchansi (Yokuts). Chukchansi is a member of the Northern Valley language, Hill Division. The other dialect of this group is Dumna (extinct).
Lg Affil	Yokuts Family (Penutian).
Fldwrk loc	Cousegold and Oakhurst, California (about 30-40 miles north of Fresno, 12 miles south of Yosemite National Park, in foothills of Sierra Nevada, 2,000-3,000 feet), **USA**.
Othr Lg Com	
Ntr Fldwrk	Not yet undertaken. Needed: immediate work with the speaker.
Est # spks	At least 1 speaker (May Lewis, age 70, in Fresno, CA). [May Lewis is said to have very good knoweldge of the language.]
Total Pop	? (Probably mixed with other Yokuts and maybe Mono. Some may reside at Table Mt Rancheria (Friant) or Fresno.
Lg Prgrm	
Othr Pro Act	
Major Doc	Kroeber's Yokuts Dialect Survey (1963) has 300-400 words. Kroeber's (1906) Yokuts Language of S. Central California contains a few more. Anna Gayton's Yokuts and Western Mono Ethnography: Northern Foothills (1948) has some vocabulary. (**See appendix**) 2/17/95

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Lg . Dlct	**Laguna** dialect of **Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	**Language Isolate.**
Fldwrk loc	Laguna Pueblo, New Mexico, USA.
Othr Lg Com	
Ntr Fldwrk	Dissertation (Valiquette 1990) was written on Laguna. Recently Valiquette has transcribed some texts and assisted the dictionary project (the main linguist is Irving Davis).
Est # spks	2060 (i.e., 30% of the total population speak the lg). Age 40 may be the break point. Children are not acquiring the lg.
Total Pop	6865 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	Laguna as a second lg is taught at Laguna Elementary School.
Othr Pre Act	Lg preservation project is in existence but requires more coordination.
Major Doc	1) Boas, 1923 (a good grammatical sketch), 1925/1928 (texts) [there are some consistent errors but quite usable]; 2) Valiquette, 1990 [contains the best bibliography]; 3) Valiquette has collected a number of texts, reasonably well analyzed, but needing more work; 4) Davis (Valiquette as a consultant) is working with the Laguna dictionary. 9/13/95

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Lg . Dlct	**Loyal Shawnee. (See appendix)**
Lg Affil	Algonquian Family.
Fldwrk loc	Tahlequah and Vinita, Oklahoma, USA.
Othr Lg Com	Absentee Band Shawnee in central Oklahoma, and Eastern Shawnee in northeastern Oklahoma.
Ntr Fldwrk	1) Inflectional morphology and verb diminutives, 2) Dictionary.
Est # spks	Approx. 14-16 speakers, mostly women, over 65 yrs old. No children are acquiring the lg.
Total Pop	Approx. 8,000 for Loyal Shawnee, 2,000+ for Absentee Shawnee, and 1,550 for Eastern Shawnee (Peter R. Hacker in Davis 1994: 585-586)
Lg Prgrm	Loyal Sawanwa Language Committee formed in 1993 by Chief Don Greenfeather.
Othr Pre Act	Language documentation and preparation of teaching materials in progress with Marcellino Berardo. (Note by A. Yamamoto)
Major Doc	1) Published and unpublished materials by Carl Voegelin. 9/6/95

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Lg . Dict	**Maliseet-Passamaquoddy**
Lg Affil	Algonquian Family
Fldwrk loc	Western New Brunswick, **Canada** (St. John River valley), and eastern Maine (St. Croix River valley), **USA**.
Othr Lg Com	New Brunswick (Tobique, Woodstock, Fredericton, and Oromocto); Maine (Perry, Princeton, Houlton, Indian Island, nominally Penobscot).
Ntr Fldwrk	Goal: 1) Grammar, 2) Dictionary, 3) Texts. [1963-1989, fieldwork with Dr. Peter Lewis Paul of Woodstock, N.B.] A volume of texts underway to be published in the Algonquian Text Series.
Est # spks	Approx. 1,000 speakers. Children are not learning the lg.
Total Pop	Approx. 2,500 - 3,000.
Lg Prgrm	Language instruction in several places, including the Micmac-Maliseet Institute at the University of New Brunswick, Fredericton, N.B.
Othr Pro Act	
Major Doc	1) Around the turn of the century by J.D. Prince and by Montague Chamberlian. 2) Sherwood, David Fairchild. 1983. Maliseet-Passamaquoddy Verb Morphology. PhD Dissertation. Yale. **(Continued in appendix)** 9/1/95

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Lg . Dict	**Mandan** (Nu'eta). **(See appendix)**
Lg Affil	Siouan Family.
Fldwrk loc	Ft. Berthold Indian Reservation, North Dakota, USA
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary, 3) Text collection. All as reference works for scholars and communities.
Est # spks	10-20
Total Pop	
Lg Prgrm	
Othr Pro Act	
Major Doc	1) A grammar and dictionary of Mandan in preparation; 2) Texts in preparation. 9/13/95

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Lg . Dlct	**Miwok languages.**
Lg Affil	Utian Family. Utian is Miwok-Costanoan, supposedly Penutian.
Fldwrk loc	Central California, USA.
Othr Lg Com	
Nfr Fldwrk	1) Complete the historial and synchronic grammar of Lake Miwok, 2) Complete comparative Miwok and comparative Utian dictionaries. Needed: Plains Miwok and Northern Sierra Miwok grammars. Suzanne Wash is working on these.
Est # spks	Lake Miwok: 3; Coast Miwok and Saclan: extinct; Plains Miwok: 1; Northern, Central, and Southern Sierra Miwok: 12 each
Total Pop	3,381 (US census 1990).
Lg Prgm	
Othr Pro Act	
Major Doc	1) Catherine A. Callaghan. 1964 Lake Miwok Dictionary. UCPL 39; 2) Catherine A. Callaghan. 1970. Bodega Miwok Dictionary. UCPL 60; 3) Catherine A. Callaghan. 1984. Plains Miwok Dictionary. UCPL 105; 4) Catherine A. Callaghan. 1987. Northern Sierra Miwok Dictionary. UCPL 110; **(Continued in appendix)** 9/17/95

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Lg . Dlct	**Mohawk.**
Lg Affil	Iroquoian Family.
Fldwrk loc	Kahnawà:ke, Quebec; Ahkwesahsne, Quebec-Ontario-New York **(USA)**; Thayendanega, Ontario; Six Nations Reserve, Ontario; Wahta, Ontario. **Canada.**
Othr Lg Com	Certain urban centers.
Nfr Fldwrk	1) Full documentation of the language including narrative and conversation, 2) Full grammatical description, 3) Assistance with the language programs.
Est # spks	Several thousand speakers. The situation varies by community: in some communities, middle age and older speak, in others only a few. In particular a few children acquire the lg.
Total Pop	5,638 in New York, 7,671 in Canada (Robert N. Wells, Jr. in Davis 1994: 353).
Lg Prgm	Community programs are very active and successful. Three communities have ambitious and successful immersion programs.
Othr Pro Act	
Major Doc	1) Beatty, John. 1972. Mohawk Morphology. PhD Dissertation. City University of New York; 2) Bonvillain, Nancy. 1973. A Grammar of Ahkwesasne Mohawk. Ottawa: National Museum of Man. Mercuty Series 8; **(Continued in appendix)** 9/11/95

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Lg . Dlct	**Montana Salish** (Flathead). **(See appendix)**
Lg Affil	Salishan Family
Fldwrk loc	Northwestern Montana, USA [-1995; 14 years]
Othr Lg Com	Other dialects of the same (nameless) language are spoken in other places: Spokane, Kalispel.
Nlr Fldwrk	Goals desired by the community: 1) Dictionary (Salish-English, English-Salish), 2) Analyzed texts. Full grammatical description is needed and Thomason has made a start on it.
Est # spks	70 (?) fluent speakers (or fewer). No children are learning the lg as a first lg.
Total Pop	5,000 (?) (at least several thousand tribal members).
Lg Prgm	Salish is taught on reservation schools at all levels.
Othr Pro Act	
Major Doc	1) A huge 2-volume 19th century dictionary by Jesuit missionaries, Mengarini, Giorda, et al. 2) A 19th century grammar by Mengarini [in Latin]. 9/1/95

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Lg . Dlct	**Oneida**.
Lg Affil	Iroquoian Family.
Fldwrk loc	Oneida, New York, USA, with speakers from Oneida Reserve in Southwold, Ontario, **Canada**. (The original homeland is the Oneida Reservation in Oneida, NY.)
Othr Lg Com	Oneida is spoken only on the Reserves in Ontario and Wisconsin. Attempts are now being made to reintroduce the lg in Oneida, New York.
Nlr Fldwrk	1) Translating and databasing previously written and recorded texts; 2) New text collecting, translating, and databasing under the direction of Floyd Lounsbury of Department of Anthropology, Yale University.
Est # spks	Approx. 50 in Ontario; about a dozen in Wisconsin; a few in Oneida, New York.
Total Pop	3,000 in Ontario, Canada; 700? in Wisconsin and 700 in New York, USA (Jack Campisi in Davis 1994: 407-408).
Lg Prgm	The Oneida people in NY are currently implementing extensive programs to reintroduce the language in schools.
Othr Pro Act	To a lesser extent, language programs are implemented for adults and preschool children.
Major Doc	1) Lounsbury, Floyd. 1953. Oneida Verb Morphology. Yale University Publications in Anthropology No. 48 [1976 reprint is still available from Human Relations Area Files Press, 455 Prospect St., New Haven, CT 06511]; 2) There are many others. 9/14/95

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Lg . Dlct	**San Felipe** dialect of **Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	Language Isolate.
Fldwrk loc	San Felipe Pueblo, New Mexico, USA.
Othr Lg Com	
Nfr Fldwrk	
Est # spks	1985 (i.e., 90% of the total population speak the lg). Children are acquiring the lg.
Total Pop	2205 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	Not written. Not taught at schools, but used by teachers and teacher aides.
Othr Pro Act	
Major Doc	1) Boas has a few notes [available from American Philosophical Society Library]; 2) Mark and Karon Tremper of the Summer Institute of Linguistics has done some work. 9/13/95

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Lg . Dlct	**Santa Ana** dialect of **Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	Language Isolate.
Fldwrk loc	Santa Ana Pueblo, New Mexico, USA.
Othr Lg Com	
Nfr Fldwrk	
Est # spks	384 (i.e., 60% of the total population speak the lg). Age 25 may be the break point. Children are not acquiring the lg.
Total Pop	640 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	There may be some program.
Othr Pro Act	
Major Doc	1) Davis' (1965) grammar [uses lists where Miller uses rules]. 9/13/95

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Lg . Dict	**Santo Domingo** dialect of **Keresan**. Dialects include Acoma, Zia, Laguna, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	Language Isolate.
Fldwrk loc	Santo Domingo Pueblo, New Mexico, USA.
Othr Lg Com	
Ntr Fldwrk	
Est # spks	2965 (i.e., 95% of the total population speak the lg). Children are acquiring the lg.
Total Pop	3120 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	Not written. Not taught at Santo Domingo School or the headstart program. Teachers and teacher aides use the lg.
Othr Pro Act	Preservation is simply based on the fact that parents are expected by the community (and obliged by the officers) to teach their children.
Major Doc	No work has been done, with the excpetion of a few notes by Boas and by Davis. No linguistic work is allowed 9/13/95

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Lg . Dict	**Seneca. (See appendix)**
Lg Affil	Iroquoian Family.
Fldwrk loc	Cattaraugus and Allegany Reservations, New York State, USA.
Othr Lg Com	The lg is now spoken only on the 3 reservations in the New York State, USA. The lg spoken by the Seneca-Cayuga Tribe of Oklahoma was a dialect of Cayuga, not Seneca.
Ntr Fldwrk	1) Grammar, 2) Dictionary (updating), 3) Texts, and 4) Pedagogically useful supplements.
Est # spks	Approx. 150. Few speakers are under 50. No children are acquiring the lg.
Total Pop	6,241 in New York State, USA (George H.J. Abrams in Davis 1994 581).
Lg Prgrm	Several bilingual programs.
Othr Pro Act	
Major Doc	1) Chafe, Wallace. 1967. Seneca Morphology and Dictionary. 2) Chafe, Wallace. In press. Sketch of Seneca. Smithsonian Handbook. 9/17/95

Inf by	Gary B. Palmer
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Lg . Dlct	**Snchitsu'umshstn** (Coeur d'Alene).
Lg Affil	Salish Family.
Fldwrk loc	Coeur d'Alene Indian Reservation in northern Idaho & in neighboring towns of Idaho and Washington State, USA [1978-1986].
Othr Lg Com	
Ntr Fldwrk	1) Transcription of recorded tapes.
Est # spks	10+ (and less than 20).
Total Pop	1213, of whom 383 lived on the reservation (in 1989).
Lg Prgm	The lg will be offered as elective at the high school near the reservation in the spring of 1996, with the help of Lawrence Nicodemus.
Othr Pro Act	A mixed group of about 12 Spokan and Coeur d'Alene elders meet weekly for lg preservation, and participation is increasing.
Major Doc	1) Doak, Ivy. 1989. Harmony in Coeur d'Alene. Unpublished ms; 2) Johnson, Robert. 1975. The Role of Phonetic Detail in Coeur d'Alene Phonology. PhD Dissertation. Washington State University, Pullman; **(See appendix)** 10/11/95.

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Lg . Dlct	**Tuscarora**.
Lg Affil	Iroquoian Family.
Fldwrk loc	Western New York near Niagara Falls (Lewiston), USA; Six Nations Reserve near Brantford, Ontario, **Canada**.
Othr Lg Com	
Ntr Fldwrk	1) Full Documentation, 2) Grammar (revised edition in progress), 3) Dictionary (extensive compilation being completed by Blair Rudes)
Est # spks	A handful of speakers [Mithun and others are working with all the speakers who are all elderly.] Children are not acquiring the lg.
Total Pop	1,200 in New York (Chief Kenneth Patterson in Davis 1994: 663).
Lg Prgm	Language classes in elementary schools in New York State.
Othr Pro Act	
Major Doc	1) Extensive texts recorded a century ago by J.N.B. Hewitt for the Smithsonian Institution; 2) Texts collected and published by Blair Rudes; 3) Grammar by Mithun (Williams) in 1976 (Garland); 4) Various articles and texts by Mithun. 9/11/95.

Inf by	Karl van Duyn Teeter
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Fax	
Email	kvt@kusc.harvard.edu
Lg . Dlct	**Wiyot**. There are three slightly differing dialects. **(See appendix)**
Lg Affil	Algic Family, branches Algonquian, Wiyot, Yurok.
Fldwrk loc	Loreta, California, USA.
Othr Lg Com	Original territory in the vicinity of Humboldt Bay, Calif., from Mad River to Eel River. Includes modern cities of Arcata, Eureka, Fortuna.
Ntr Fldwrk	Goals: 1) Grammar, 2) Texts, 3) Dictionary.
Est # spks	Last speaker Della Henry Prince (1878-1962).
Total Pop	Approx. 800, all English speakers.
Lg Prgrm	
Othr Pro Act	Teeter materials are studied under direction of Ms. Cheryl Seidner. Fieldnotes and tapes with her and Humboldt State University.
Major Doc	1) Teeter, Karl van Duyn. 1964. The Wiyot Language. UC Pubs. in Ling. Vol. 237. 2) Two-volume Glossary in Algonquian and Iroquoian Linguistics Newsletter. 1964. 3) A.L. Kroeber's word list. 4) Richard, Gladys. 1922. Wiyot Grammar and Texts. UCPAAE Series. (Franz Boas' student; Poor phonetics and difficult to use). 9/1/95.

Inf by	Bruce L. Pearson
Address	Linguistics Program University of South Carolina Columbia, SC 29208
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Fax	(803) 777-9064
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Lg . Dlct	**Wyandotte**. **(See appendix)**
Lg Affil	Iroquoian Family.
Fldwrk loc	Extinct. Archival work. (Originally Quebec, **Canada**). [Currently we find Wyandotte people in Oklahoma, **USA**. It is reported that the last speaker passed away in 1995.]
Othr Lg Com	
Ntr Fldwrk	1) Grammar, 2) Dictionary.
Est # spks	0.
Total Pop	3,617 in Oklahoma, USA (Clifford E. Trafzer in Davis 1994: 700).
Lg Prgrm	
Othr Pro Act	
Major Doc	1) Barbeau, marius. 1960. Huron-Wyandotte Traditional Narratives. National Museum of Canada Bulletin 165 (Ottawa, Canada). [40 Wyandotte narratives with English translation]; 2) Pearson, Bruce L. To appear. The Wyandotte Language. Columbia, SC: Yorkshire Press. [comprehensive grammatical description with lexicon] 2/17/96.

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Inf by	Akira Y. Yamamoto
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Lg . Dlct	**Yavbé**, a dialect of Yavapai (other dialects are Tolkapaya, Wipukpaya, Kweevkpaya).
Lg Affil	Upland Branch of Yuman Family
Fldwrk loc	Yavapai Prescott Tribe, Prescott, Arizona, USA.
Othr Lg Com	Fort McDowell Mohave-Apache Indian Community, Arizona; Camp Verde Yavapai-Apache Community, Arizona.
Ntr Fldwrk	1) Sketch of the grammar, 2) Preparation of teaching materials (preliminary task completed).
Est # spks	A handful in Prescott. The situation seems the same in other communities. Children are not acquiring the lg at home.
Total Pop	130 (BIA labor Force Reports 1992). Fort McDowell 640; Camp Verde 650.
Lg Prgrm	Yavapai Prescott Tribe has been offering language classes with Mrs Esther Scott as the teacher.
Othr Pro Act	
Major Doc	1) Hardy, Heather K. 1979. Tolkapaya Syntax: aspect, modality, and adverbial modification in a Yavapai dialect. PhD Dissertation. University of California at Los Angeles; **(Continued in appendix)** 9/20/95

Inf by	Mary S. Linn
Address	Department of Linguistics University of Kansas Lawrence, Kansas 66045
Phone	
Fax	
Email	mslinn@lark.cc.ukans.edu
Lg . Dlct	**Yuchi**.
Lg Affil	Language Isolate (or possible Siouan affiliation).
Fldwrk loc	Sapulpa area (southwest of Tulsa), Oklahoma, USA.
Othr Lg Com	None.
Ntr Fldwrk	1) Description of the language (grammar & lexicon, dissertation work). 2) Pedagogical grammar for Euchee/Yuchi teachers. Needed: All areas still need work, esp. phonology, discourse texts, etc.
Est # spks	10-12 fluent speakers, all 55+; 20-25 partial speakers, all 45+; 20+ non-speakers who understand, all 40+. **(Continued in appendix)**
Total Pop	1,500 (John Moore in Davis 1994: 716).
Lg Prgrm	1) Euchee Language Class of Sapulpa in its 5th yr. 2) Children's Class, Sapulpa (for toddlers - junior high).
Othr Pro Act	Three-day Euchee Language Camp during the summer by Euchee Language Class of Sapulpa.
Major Doc	1) Wagner, Günter. 1930. Yuchi Tales. Publications of the BAE 13. 2) Wagner, Günter. 1934. Yuchi. Handbook of AIL Vol. 3, pp. 291-384. 3) Crawford, James. Unpublished materials, American Philosophical Society Library. 4) articles variously published by researchers Wolf, Carawford, Ballard, and Linn. 9/14/95.

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Inf by	Hilaire Valiquette
Address	P.O. Box 1270 Peña Blanca, NM 87041
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Fax	
Email	
Lg . Dlct	**Zia dialect of Keresan**. Dialects include Acoma, Laguna, Zia, Santa Ana, San Felipe, Santo Domingo, Cochiti, all Pueblos in New Mexico. **(See appendix Keresan Language Isolate)**
Lg Affil	**Language Isolate.**
Fldwrk loc	Zia Pueblo, New Mexico, USA (See also entries for Laguna and Cochiti).
Othr Lg Com	Zia Pueblo, New Mexico (See separate entries for Acoma, Laguna, Santa Ana, San Felipe, Santo Domingo, and Cochiti Pueblos).
Ntr Fldwrk	1) [Consultant to the Zia tribal culture preservation program] Development of Orthography (completed), 2) Dictionary (focusing on plants and animals at present), 3) Text recording and analysis, 4) Zia researcher training, 5) Teacher training; [Research] 1) Dictionary, 2) Text collection.
Est # spks	504 (70% of the total population); Age 20 may be the break point. Some children acquire the lg.
Total Pop	720 [Figure from Simmons 1979, p. 221 for 1970. Increased by 35% which may be low.]
Lg Prgrm	The lg is taught at Zia Elementary and Jemez Valley High School only to Zia children.
Othr Pro Act	Preservation project is beginning to take shape.
Major Doc	None at the present. 9/13/95

Venezuela (2)
Kari'ña, Northern Carib [Andrés Romero-Figueroa]
Warao, Lg isolate [Andrés Romero-Figueroa]

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Lg . Dlct **Kari'ña**.

Lg Affil Northern Carib.

Fldwrk loc El Tigre (Cachama), State of Anzoategui, **Venezuela**.

Othr Lg Com **All villages within oil fields of the Guanipa Plateau in the State of Anzoátegui. About 15 main communities along a very busy road connecting Barcelona and Ciudad Bolívar.**

Nlr Fldwrk 1) Reference grammar, 2) Collection of narratives representative of Kari'ña values.

Est # spks Approx. 5,000. Heavily influenced by Spanish society since they are concentrated in an industrial zone. Yes in the outermost villages, soon becoming Spanish monolinguals.

Total Pop 10,000 in Venezuela (Grimes 1988: 140, citing 1976 Ministry of Justice figure).

Lg Prgrm Very weak lg programs with a few bilingual teachers.

Othr Pro Act

Major Doc 9/13/95

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Lg . Dlct **Warao**.

Lg Affil Language Isolate.

Fldwrk loc Tucupita (Yakanyene), State of Delta Amacuro, Venezuela; San José de Buja (Wanakawaha), State of Monagas, **Venezuela**.

Othr Lg Com **All small towns and villages spread over the Orinoko Delta, including areas of the State of Sucre in northeastern Venezuela.**

Nlr Fldwrk 1) Syntax, 2) Morphology.

Est # spks Approx. 15,000. Much influenced by the Spanish as they tend to settle nearby towns inhabited by people of Hispanic descent. Monolingual in Warao in outermost villages; once in towns, switch to Spanish.

Total Pop 15,000 in Venezuela (Grimes 1988: 142, citing 1975 Gaceta Indigenista figure).

Lg Prgrm Very passive programs with a few bilingual teachers.

Othr Pro Act

Major Doc 9/13/95

Appendix: Additional Information

The entries are organized alphabetically by language/dialect names.

Abbreviations:

Lg.Dict	=	language or dialect
Inf by	=	information reported by
Add Inf	=	additional information

Lg.Dict Absentee Shawnee.

Inf by Bruce L. Pearson

Add Inf **(Major Documentation continued)**
2) Norcross, Amoena B. 1993. Noun Incorporation in Shawnee. PhD dissertation. Columbia, SC: University of South Carolina [theoretical treatment of noun incorporation]; 3) Pearson, Bruce L. 1995. Shawnee Language Dictionary. Columbia, SC: Yorkshire Press. [6248 Yorkshire Drive, Columbia, SC 29209; 44-page handbook with 500-item Eng-Shawnee & Shawnee-Eng dictionary]; 4) Voegelin, Carl F. 1937-40. "Shawnee Stems and the Jacob P. Dunn Miami Dictionary." Indiana Historical Society Prehistory Research Series 1:63-108, 135-167, 289-341, 345-406, 409-478. [Shawnee roots with examples of inflected forms]

Lg.Dict Azoyú Tlapanec.

Inf by Søren Wichmann

Add Inf Wichmann has done some exploratory fieldwork on Ayapa Zoque (Mixe-Zoquean) o Ayapa, Tabasco, Mixico). There are less than 10 fluent speakers, all elderly. Zero documentation apart from some lexical items. Wichmann states that the lg is so marginalized as to sometimes not even being recognized by linguists.

Lg.Dict Baniwa of Içano, North Arawak.

Inf by Alexandra Y. Aikhenvald

Add Inf Baniwa of Içana (including its dialects known as Kurripako and others) is still the healthiest Arawak language of the region of the Upper Rio Negro, Amazonas, Brazil. However, the growing bilingualism in Portuguese among younger people looks dangerous for the survival of the language.

(Major Documentation)
1) Aikhenvald, A.Y. Forthcoming. "Classifiers in Baniwa." Moscow Linguistic Journal; 2) Aikhenvald, A.Y. Forthcoming. Person-marking and discourse in North Arawak languages. Studia Linguistica; 3) Aikhenvald, A.Y. Forthcoming. Classe nominal e gênero nas línguas Aruák. Boletim do Museu Gaeldi, Belem, Pará; 4) Aikhenvald, A.Y. ms. Topic-advancing voice in Baniwa of Içana and Tariana; 5) Gonzalez Nañez, O. 1985. "Los numerales en un dialecto curripaco." Boletín de Lingüística 5: 15-28; 6) Taylor, G. 1991. Introdução à língua Baniwa do Içana. Editora Unicamp; 7) Valadares, S.M.B. 1993. Aspectos da língua Kurripako (Kunandene). MA Thesis, Federal University of Santa Catarina, Florianópolis, Brazil.

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Lg.Dict Bare, North Arawak.

Inf by Alexandra Y. Aikhenvald

Add Inf Bare used to be one of the most important indigenous languages of the region of the Upper Rio Negro in the last century and the beginning of this century.

(Major Documentation)
1) Aikhenvald, A.Y. Forthcoming. Bare. Lincom Europa 100; 2) Aikhenvald, A.Y. Forthcoming. Person-marking and discourse in North Arawak languages. Studia Linguistica; 3) Aikhenvald, A.Y. Forthcoming. "Words, pauses, and boundaries: evidence from Soth American Indian Languages." Studies in Language; 4) Forthcoming. Classe nominal e gênero nas línguas Aruák. Editora da UFSC, Florianópolis, Brazil; 5) Chaffanjon, J. 1889. L'Orénoque et le Caura: relation des voyages executés en 1886 et 1887. Paris: Librarie Hachette et Cie; 6) Civrieux, M. and R. Lichy. 1950. "Vocabulário de cuatro dialectos Arawak del no Guainia." Boletín de la Sociedad Venezolana de Ciencias Naturales XIII (77): 121-159; 7) Crevaux, J.N., P. Sagot and L. Adam. 1882. Grammaires et vocabulaires Roucoyenne, Arrouague, Piapoco et d'autres langues de la région des Guyanes. Paris; 8) Cunha de Oliveira. 1993. Aspectos da fonologia e morfologia da língua Bare. MA Thesis, Federal University of Santa Catarina, Florianópolis, Brazil; 9) Koch-Grünberg, T. 1906. "Die Indianer-Stämme am oberen Rio Negro und Yapurá und ihre sprachliche Zugehörigkeit." Zeitschrift für Ethnologie 38: 167-205; 10) Koch-Grünberg, T. 1911. "Aruak-Sprachen Nordwestbrasiliens und der angrenzenden Gebiete." Mitteilungen der anthropologischen Geselschaft, Wien Vol. 41: 33-153, 203-282; 11) Koch-Grünberg, T. 1913. Abschluss meiner Reise durch Nordbrasilien zum Orinoco, mit besonderer Berücksichtigung der von mir besuchten Indianerstämme. Zeitschrift für Ethnologie 45: 448-474, 12) Koch-Grünberg, T. 1928. Vom Roroima zum Orinoco. Ergebnisse einer Reise in Nordbrasilien und Venezuela in den Jahren 1911-1913, Vol. 4 (Sprachen), Stuttgart; 13) Lopes Sanz, R. 1972. El Baré: estudio lingüístico. Universidad Central de Venezuela, Faculdad de Economia y Ciencias Sociales; 14) Loukotka, C. 1968. Classification of South American Indian Languages. Washington, D.C.: Smithsonian Institution; 15) Martius, C.F. von. 1867. Beiträge zur Ethnographie und Sprachenkunde Amerikas zumal Brasiliens. Leipzig; 16) Nimuendajú, C. 1932. "Wortlisten aus Amazonien." Journal de la Société des Américanistes de Paris 24: 93-119; 17) Pérez, A. 1987. "Los Bale (Baré)." Los Abongenes de Venezuela (Caracas, 1988): 413-479; 18) Tavera-Acosta, B. 1907. En el Sur (Dialectos indígenas de Venezuela). Ciudad Bolivar.

Lg.Dict Cayuga.

Inf by Marianne Mithun

Add Inf Less than 500 on the 3 Seneca reservations and on the Onondaga Reservation in New York, USA (William A. Starna in Davis 1994: 94). **See also Michael Foster.**

Lg.Dict Cayuga.

Inf by Michael K. Foster

Add Inf Other Iroquoian languages (Mohawk, Onondaga) besides Cayuga are spoken on the Six Nations Reserve and on other reserves. The % of the population that is estimated to be fluent in an Iroquoian language on this reserve is 1.73 (Shimony's Conservatism Monograph, 1994). **See also Marianne Mithun.**

Lg.Dict Central Pomo.

Inf by Marianne Mithun

Add Inf There are 7 mutually unintelligible languages in the Pomoan family: Central Pomo, Northern Pomo, Eastern Pomo, Southern Pomo, Southeastern Pomo, Northeastern Pomo, and Kashaya (=Southwestern Pomo).

Lg.Dict Chounmne (Yokuts).

Inf by Robert Lyday

Add Inf **(Major Documentation continued)**
2) Gayton, Anna H. 1948. Yokuts and Western Mono Ethnography II: Northern Foothill Yokuts and Western Mono. Anthropological Records 10:2 (Berkeley & LA: University of California Press); 3) Newman, Stanley S. 1944. Yokuts Language of California. Viking Fund Publications in Anthropology Number 2 (New York) (best documentation yet, but hard to read).

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Lg.Dict Chuj.

Inf by Judith M. Maxwell

Add Inf There are unpublished 12 elementary Chuj lessons by PLFM. Information on documentation, etc. available through: The Academy of Mayan Languages of Guatemala, Guatemala City, Apdo Postal 1322, Guatemala. FAX 502-2-29342.

Lg.Dict Chukchansi (Yokuts)

Inf by Robert Lyday

Add Inf **(Major Documentation)**
1) Broadbent, Slyvia and Sydney Lamb. 1954. Field Notes. (On file in the Survey of California and other Indian Languages. University of California at Berkeley); 2) Collard, Thomas. 1968. Yokuts Grammar: Chukchansi. University of California PhD dissertation. Berkeley: University of California; 3) Curtis, Edward S. 1923. The North American Indian, Volume 14. Norwood, MA: Plimpton Press; 4) Kroeber, Alfred L. 1907. The Yokuts Language of South-central California. University of California Publications in American Archaeology and Ethnology 2:165-378. Berkeley: University of California Press; 5) Kroeber, Alfred L. 1963. "Yokuts dialect survey." Anthropological Records 11:3 (Berkeley: University of California); 6) Newman, Stanley S. 1944. Yokuts Language of California. Viking Fund Publications in Anthropology Number 2 (New York).

Lg.Dict Faetar, a dialect of Francoprovençal

Inf by Naomi Nagy

Add Inf **(Other Lg Com continued)** Canada (esp. Toronto, Ontario); Switzerland (Bern); and Northern Italy (Torino).
No standard orthography.
In the emigré communities, interest is high in the dialect; the journal is read and there are annual gatherings to celebrate Faetar holidays.

(Major Documentation continued)
1) Minichelli, Vincenzo. 1994. Dizzonario francoprovenzale Celle di San Vito e Faeto. Alessandria: Edizione dell'orso; 2) De Salvio, A. 1918. "Relics of franco-provençal in Southern Italy." MLA XXIII: 45-79. (a short description of the language); 3) Jaberg, Karl & Jakob Jud, ed. 1928-1940. Sprach- und Sachatlas Italiens und der südschweiz. Zofingen: Ringier. (Dialect atlas includes Faeto.); 4) Kattenbusch, Dieter. 1982. Das Frankoprovenzalische in Südtalien. Studien zur synchronischen und diachronischen Dialektologie. Tübingen: Gunter Narr Verlag. (A dissertation, cataloguing phonemes and morphemes; a brief but inaccurate glossary); 5) Melillo, M. 1956-7. "Il tesoro lessicale franco-provenzale odierno di Faeto e Celle in provincia di Foggia." L'Italia dialettale XXI: 49-128. (A short glossary); 6) Morosi, G. 1890-1892. "Il dialetto franco-provenzale di Faeto e Celle, nell'Italia meridionale." Archivio Glottologico Italiano XII: 33-75. (A catalogue of correspondences to Latin consonants and vowels.)

Unlike many dialects spoken in small isolated communities, Faetar does not appear to face lg death or shift. In most European countries, local dialects flourished only until the institution of a national lg, yet all the natives of Faeto still speak Faetar on daily basis with Italian for communication with outsiders. Most emigrants continue to speak Faetar for several generations after leaving Faeto. Faetar is held in high regard by its speakers: they recognize a certain amount of prestige in their distinctness from other southern Italians. However, Faetar is in danger of disappearing from its homeland within a few generations, due to the rapidly decreasing population of Faeto (and the rest of rural southern Italy).

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Lg.Dict Coatzospan Mixtec, Mixtecan, Oto-Manguean.

Inf by Priscilla Small

Add Inf Henry (Chip) Gerfen (currently teaching at University of North Carolina at Chapel Hill, USA) has recently done extensive phonological analysis of Coatzospan Mixtec as part of his PhD program and thesis at the University of Arizona, Tucson, Arizona, USA.

(Major Documentation)
1) Pike, eunice V. and Priscilla Small. 1974. Downstepping Terrace Tone in Coatzospan Mixtec. In Advances in Tagmemics, ed. by Ruth M Brend. Pp. 105-134. North Holland Linguistic Series Number 9. Amsterdam: North Holland; 2) Small, Priscilla. 1979. Prominence and Dominance in Coatzospan Mixtec Narrative. In Discourse Studies in Mesoamerican Languages Vol. I, ed. by Linda K. Jones. Pp. 353-372. SIL Publications in Linguistics 58. Dallas: SIL and University of Texas at Arlington. [Texts in Vol II]; 3) Small, Priscilla. 1990. A Syntactic Sketch of Coatzospan Mixtec. In Studies in the Syntax of Mixtec Languages Vol. 2, ed. by C. Henry Bradley and Barbara E. Hollenbach. Pp. 267-479. Dallas: SIL and University of Texas at Arlington; 4) Turner, Janet and Priscilla Small. 1981. Coatzospan Mixtec Kinship Terms. In Proto Otomanguean Kinship, ed. by William R. Merrifield. Pp. 159-161. International Museum of Cultures Publication 11. Dallas: International Museum of Cultures.

Lg.Dict Costanoan languages.

Inf by Catherine A. Callaghan

Add Inf The terms Costanoan and Ohlone are used interchangeably today. Eight Costanoan/Ohlone languages are recognized: Karkin, Chochenyo, Ramaytush, Tamyen, Awaswas, Mutsun, rumsen, and Chalon. Four groups are seeking federal recognition: the Amah Band, Carmel Mission Band, Indian Canyon Band, and Muwekma Tribe (Linda G. Yamane in Davis 1994: 143-144).

Lg.Dict Hokkaido Ainu

Inf by George J. Simeon

Add Inf The community lg programs suffer from a lack of speakers and lack of interest on the part of the young. Simeon's dissertation was based on his Ainu linguistic fieldwork, and he continued the research as a Fulbright Research Scholar.

[Compiler's Note: At the International Symposium on Endangered Languages (University of Tokyo, Japan, October 1, 1995), Tomomi Okuda of Sapporo Gakuin University and Harumi Sawai of Hokkaido Prefectural Center for Ainu Studies report that there may be at least 40 or so speakers and that there are some active language classes.]

Lg.Dict Guadeloupean French Creole.

Inf by Gregory Paul P. Meyjes

Add Inf 2) Schnepel, Ellen M. 1990. the Politics of Language in the French Caribbean: The Creole Movement on the Island of Guadeloupe. PhD Dissertation. Columbia University; 3) Bernabé, Jean. 1983. Fondal-natal: grammaire basilectale approchée des créoles guadeloupéean et martiniquais. (3 vols). Paris: L'Harmattan; 4) Bébel-Gisler, Dany. 1976. La language créole, force jugulée. Etude socio-linguistique des rapports de force entre le créole et le français aux Antilles. Paris: L'Harmattan.

Lg.Dict Hwalbáy (Hualapai, Walapai).

Inf by Akira Y. Yamamoto

Add Inf **(Major Documentation continued)**
3) Watahomigie, L., J. Bender, and A.Yamamoto. 1982. Hualapai Reference Grammar. American Indian Studies Center, UCLA. [The revised and expanded Hualapai Reference Grammar is now completed.]

Younger people are now coming back to the community speaking primarily English. The role of the school in the language maintenance is becoming increasingly important. Yamamoto continues to work with the school. Kumiko Ichihashi-Nakayama of University of California at Santa Barbara is currently working on Hualapai discourse/conversation.

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Lg.Dict Jarawara dialect of Madi Language.

Inf by R.M.W.Dixon.

Add Inf Dixon is working with Alan Vogel (SIL linguist). The Brazilian Government has scarcely ventured into this forest area. There is no school, no medical post. The people do listen to the radio (Portuguese programs) on battery-powered sets, but this has minimal impact on the language. With Jarawara and other two dialect speakers, older people (from teens) also know varying amount of Portuguese for communication with whites on the main river (Purús).

The language is not currently threatened. But the people would like a school and medical post. If these are provided (in the way they have been in other parts of Brazil), a threat to the maintenance of the language may then develop.

Lg.Dict Jarawara Dialect of Madi Language.

Inf by Alan Vogel

Add Inf The education program was begun by Elizabeth Vencio and Sandra Giani, Brazilians with Jovens com uma Missão (JOCUM). Alan and Lucilia Vogel are with SIL and they have cooperated with the education program since it began. More recently David and Francisca Irving have also joined the JOCUM team and Sandra Giani has left. See also **RMW Dixon**.

Lg.Dict Kadiweu.

Inf by Filomena Sandalo

Add Inf **(Major Documentation)**
1) Braggio, Silvia L.B. 1981. Aspectos fonologicos e morfologicos do Kadiweu. MA Thesis. UNICAMP: Brazil; 2) Cerra, Veronica & Filomena Sandalo. 1995. A Preliminary Reconstruction of Proto-Waikuruan with Special Reference to pronominals and Demonstratives. Anthropological Linguistics 37, 2: 169-191; 3) Griffiths, Glyn. 1973. Numerals and Demonstratives in Kadiweu. Arquivos de Anatomia e Antropologia I: 63-77 (Rio de Janeiro, Brazil: Instituto de Antropologia Prof. Souza Marques); 4) Griffiths, Glyn. 1987. Relative Clause Formation and Other Word Parameters in Kadiweu. MA Thesis. Reading University: Reading; 5) Griffiths, Glyn. 1991. Wh-Movement in Kadiweu. PhD Dissertation. Reading University: Reading; 6) **Griffiths, Glyn & Cynthia Griffiths**. 1976. Aspectos da lingua Kadiweu (Serie linguistica 6) Summer Institute of Linguistics: Brasilia, Brazil; 7) Sandalo, Filomena. 1995. Kadiweu as a Pronominal Argument Language. Paper presented at the Linguistic Society of America Annual Meeting. New Orleans, Louisiana; 8) Sandalo, Filomena. 1995. A Grammar of Kadiweu. PhD Dissertation. University of Pittsburgh: Pittsburgh, Pennsylvania.

Lg.Dict Kalasha.

Inf by Ken Decker

Add Inf Decker has written several papers specifically on language vitality of Kalasha. The series of five volumes of the Sociolinguistic Survey of Northern Pakistan gives sociolinguistic data, including language vitality on 26 languages.

Lg.Dict Kaqchikel (Cakchiquel)

Inf by Judith M. Maxwell

Add Inf Information on documentation, etc. available through: The Academy of Mayan Languages of Guatemala, Guatemala City, Apdo Postal 1322, Guatemala. FAX 502-2-29342.

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Lg.Dlct Karuk (also Karok).

Inf by William Bright

Add Inf Bright actively cooperating in the community lg. program for lg. preservation. New research on Karuk morphosyntax has been done in recent years by Dr. Monica Macaulay (Purdue University). Work on oral literature and songs is being done by a young Karuk scholar, Julian Lang, of the Center for Indian Community Development, Humboldt State University, Arcata, California.

Lg.Dlct Kechayi, Chukchansi (Yokuts).

Inf by Robert Lyday

Add Inf Desire to learn the lg is high, and the Tribe initiated the lg preservation project. The project faces problems such as lack of cooperation and funds. The orthography project is done; 1500 dictionary items collected and shared. In general, the project faces problems.

(Major Documentation)
1) Gayton, Anna H. 1948. Northern Foothills Yokuts and Western Mono Ethnology II: Yokuts and Western Mono. Anthropological Records 10, 2: 159-175 (Berkeley: University of California); 2) Kroeber, Alfred L. 1907. The Yokuts Language of South-central California. University of California Publications in American Archaeology and Ethnology 2:165-378. Berkeley: University of California Press; 3) Kroeber, Alfred L. 1963. "Yokuts dialect survey." Anthropological Records 11:3 (Berkeley: University of California).

Lg.Dlct Keresan Language Isolate

Inf by Hilaire Valiquette

Add Inf **(Linguistic Work Needed)** in every area with every dialect: 1) Studies of the phonology (esp. the tone system) of every dialect, and then comparative studies; 2) Grammars for all dialects; 3) Dictionaries for all dialects; 4) Texts--recording, transcription and analysis. There are some for Acoma, Laguna, Zia and Cochiti, but they need further analysis; 5) Studies on dialect relationship; 6) Studies on relationship of Keresan with other lg families. Valiquette is convinced that Greenberg's proposed connection with Caddoan (and Iroquois) is totally without evidence. One possibility is with Uto-Aztecan (as suggested by Davis); 7) Discourse work (stories, speeches, etc.); 8) Sociolinguistic work. 9) work on music and song text. Furthermore, a study is needed of earlier anthropological material to find and identify words, usually of questionable transcription. Recording needs to be done of all Keres recorded materials (e.g., at Indiana University, the Library of Congress, American Philosophical Society Library), some of which are 50 years old or more. **Work with Keresan languages** is an extremely delicate issue, and may not (and should not) be done without the explicit permission of the Tribal Government. Some pueblos (e.g., Zia and Laguna) are willing to engage in such work, a recent change; others (e.g., Santo Domingo and San Felipe) are totally against such work. The irony of the fact that the pueblos which do not allow linguistic work are also the pueblos where the language is best preserved should be obvious. Any pueblo person working with a linguist without the explicit permission of the Tribal Government would be seen as betraying the people. Any "secret" work is both unethical and damaging to possible future work. **[General Bibliography** (Valiquette 1990 contains the best bibliography)] 1) Boas, Franz. 1923. "A Keresan Text." IJAL 2: 171-180; 2) Boas, Franz. 1925/1928. Keresan Texts. American Ethnological Society Publication Vol.8, parts 1 & 2 [1925 has Laguna texts in Boas' orthography; 1928 is a literal translation]; 3) Davis, Irvine. 1960. The Language of Santa Ana Pueblo. Bureau of American Ethnology Bulletin 191. Washington, D.C.; 4) Maring, Joel. 1967. Grammar of Acoma. PhD Dissertation. Indiana University; 5) Miller, Wick. 1965. Acoma Grammar and Texts. University of California at Berkeley; 6) Miller, Wick and Irvine Davis. 1963. "Proto-Keresan Phonology." IJAL 29: 310-330; 7) Simmons, Marc. 1979. "History of the Pueblos since 1821." In Alfonso Ortiz, ed. Handbook of North American Indians Vol. 9: 207-223; 8) Valiquette, Hilaire. 1990. A Study for a Lexicon of Laguna Keresan. PhD Dissertation. University of New Mexico; 9) Various ethnographic studies, especially of Acoma, Santa Ana, and Zia by Leslie White.

Lg.Dict Keresan Language Isolate

Inf by Hilaire Valiquette

Add Inf Rather than the common division into Eastern and Western (Laguna and Acoma), Valiquette suggests a dialect continuum: Acoma/Laguna <-> Zia/Santa Ana <-> San Felipe/Santo Domingo <-> Cochiu. At the both end, intelligibility may be above 70%. The main differences are in the verb forms and the "small words" such as evidentials, conjunctions, etc.

Lg.Dict Khowar (Chitrali).

Inf by Ken Decker

Add Inf **(Major Documentation continued)**
2) Grierson, George. 1901-1927. Linguistic Survey of India. Vol. I-X. Calcutta: Government of India Central Publishing Branch; 3) Morgenstierne, Georg. 1947. Some features of Khowar morphology. Norsk Tidsskrift for Sprogvidenskap 14: 5-28.

There are at least 3 dictionaries, an occasional journal in Kohwar, 2 Khowar cultural conferences, but little actual long-range development to help the people linguistically. The series of five volumes of the Sociolinguistic Survey of Northern Pakistan gives sociolinguistic data, including language vitality on 26 languages.

Lg.Dict Kwaza (also as Kwiá, Koreá, Coxá, Quiá).

Inf by Hein van der Voort

Add Inf **(Major Documentation continued)**
Some of the above are included in publications listed below.
5) Loukotka, Cestmír. 1963. "documents et vocabulaires inédites de langues et de dialectes sud-américains." Journal de la Société des Americanistes, nouvelle série, tome LII: 7-60. Paris: Musée de l'Homme; 6) 1968. Classification of South American Indian Languages. Johannes Wilbert (ed.). Los Angeles: Latin American Center, UCLA; 7) Rodrigues, Aryon Dall'Igna. 1986. Línguas Brasileiras: Para o conhecimento das línguas Indígenas. São Paulo: Edições Loyola.

Lg.Dict Loyal Shawnee

Inf by David Costa

Add Inf Since June of 1995, a University of Kansas graduate student Marcellino Berardo has also been working with speakers of Loyal Shawnee. His goal: a grammar and dictionary.

Lg.Dict Maliseet-Passamaquoddy

Inf by Karl van Duyn Teeter

Add Inf **(Major Documentation continued)**
3) LeSourd, Philip Stanley. (1988) 1993. Accent and Syllable Structure in Passamaquoddy. New York: Garland; 4) LeSourd, Philip Stanley. 1984. Dictionary of Passamaquoddy- Maliseet and English. Micmac-Maliseet Institute.

Most of the Teeter material is yet to be published. There are a number of slightly differing dialects, but only one lg (the two names come about because of the int'l boundary through the middle of their territory, on which the Indians were not consulted).

Lg.Dict Mandan (Nu'eta).

Inf by Mauricio Mixco

Add Inf Three tribes, the Arikara, Hidatsa (Gros Ventres), and Mandan are officially known as the Three Affiliated Tribes, and occupy the Fort Berthold Indian Reservation in western North Dakota. The total tribal enrollment is 6,000 (of which 3,000 reside on the reservation) (Mary Jane Schneider in Davis 1994: 634).

Lg.Dict Mayan languages and their dialects.

Inf by Eleanor Frankle

Add Inf Frankle reports that speakers of Yucatecan Mayan insisted that they could express any new idea in their own lg. In Cozumel, the lg is not used as the younger wanted to be known as Mexicans the older disheartened. Frankle deals with more than 30 Mayan lgs and their dialects, has worked with lg programs in Quintana Roo, Campeche, and Chiapas. She works in lg awareness projects.

Lg.Dict Miwok languages.

Inf by Catherine A. Callaghan

Add Inf **(Major Documentation continued)**
5) L.S. Freeland. 1951. Language of the Sierra Miwok. IUPAL, IJAL Memoir 6; 6) L.S. Freeland & Sylvia M. Broadbent. 1960. Central Sierra Miwok dictionary with Texts. UCPL 23; 7) Sylvia M. Broadbent. 1964. The Southern Sierra Miwok Language. UCPL 38; 8) Catherine A. Callaghan. 1963. A Grammar of the Lake Miwok Language. PhD Dissertation.

Lg.Dlct Mocho (Motozintleco).

Inf by Laura Martin

Add Inf **(Major Documentation continued)**
5) Martin, Laura. 1987. The interdependence of language & culture in the Mocho Bear Story. Anthropological Linguistics 533-558; 6) Martin Laura. 1990. Los verbos de discurso en mocho. In Lecturas en la linguistica maya, ed. by Stephen R. Elliott & Nora C. England, pp 421-443. Antigua, Guatemala: Centro de Investigaciones Regionales de Mesoamerica; 7) Martin, Laura. 1994. Coming here and going there: A preliminary account of motion & direction in Mocho. Linguistic Anthropology 4, 2: 131-152.

Lg.Dlct Mohawk, Iroquoian Family

Inf by Marianne Mithun

Add Inf Mithun, in a joint effort among all Mohawk speaking communities, is compiling a comprehensive dictionary.

(Major Documentation continued)
3) Bonvillain, Nancy & Beatrice Francis. 1971. Mohawk-English Dictionary. St. Regis: St. Regis Mohawk Tribal Council & St. Regis Band Council; 4) Michelson, Gunther. 1973. A Thousand Words of Mohawk. Ottawa: National Museum of Man. Mercury Series 5; 5) Mithun, Marianne. 1977. Iontenwennaweienatáhkhwa': Mohawk Spelling Dictionary. Albany: New York State Museum Bulletin 429; 6) Deering, Nora & Helga Harries Delisle. 1976. Mohawk: A Teaching Grammar. La Macaza, Quebec: Manitou College; 7) (Williams), Marianne Mithun. 1976. Kanien'kéha' Okara'shòn:'a -- Mohawk Stories. Albany: New York State Museum Bulletin 427.

Lg.Dlct Montana Salish (Flathead)

Inf by Sarah G. Thomason

Add Inf There is a grammar of Kalispel (Vogt 1940) and a grammar of Spokane (Carlson 1972 & subsequent articles), but none of Montana Salish since Mengarini's 19th century grammar.

Lg.Dlct Onondaga.

Inf by Hanni Woodbury

Add Inf **(Major Documentation continued)**
3) Woodbury, Hanni, ed. 1992. Concerning the League: The Iroquois League Tradition as Dictated in Onondaga by John Arthur Gibson. Algonquian and Iroquoian Linguistics, Memoir 9.

Lg.Dlct Phalura (Dangarik).

Inf by Ken Decker

Add Inf **(Major Documentation continued)**
2) Buddruss, Georg. 1967. Die sprache von Sau in Ostafghanistan, beitrage zur kenntnis des Dardischen Phalura. Münchener Studien zur Sprach wissenscaft, poetheft M. München: J. Kitzinger.

Decker has written several papers specifically on language vitality of Phalura. The series of five volumes of the Sociolinguistic Survey of Northern Pakistan gives sociolinguistic data, including language vitality on 26 languages.

Lg.Dlct Pima of Ónavas (Uto-Aztecan).

Inf by Ken Hale

Add Inf Ónavas Pima is believed to be the direct descendent of Névome, for which there exists a 17th century grammar and vocabulary (Pennington 1979). On the assumption that Ónavas Pima continues the Névome of the Jesuit *Arte* (Smith 1862) and voc (Pennington 1979), then those documents can be considered major documentation. Shaul is, in part, an interpretive study of the Jesuit *Arte*. This author also mentions notes of his own on Onabus (sic) Piman in Shaul (1994).

(Major Documentation)
1) Hale, Kenneth, Agustín Estrella, María Fierro, Pedro Estrella, & María Córdova. 1977 manuscript. *Breve Vocabulario del Idoma Pima de Ónavas*. Tucson: University of Arizona; 2) Pennington, Cambell W. 1979. *Vocabulario en Lengua Névome*, Volume II of *The Pima Bajo of Central Sonora, Mexico*. Salt Lake City: University of Utah Press; 3) Shaul, David L. 1986. Topics in Névome Syntax. University of California Publications in Linguistics 109. Berkeley & Los Angeles: University of California Press; 4) Shaul, David L. 1994. "A sketch of the structure of Oob No'k (Mountain Pima)." *Anthropological Linguistics* 36:277-365; 5) Smith, Buckingham, ed. 1982. *Arte de la lengua névome, que se dice pima, propia de Sonora: con la doctrina christiana y confesionario añadidos*. Shea's Library of American Linguistics, Volume 5. New York: Cramoisy Press. [Reprint. New York: AMS Press, Inc. 1970.]

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Lg.Dict Potosino dialect of Huastec.

Inf by Barbara W. Edmonson

Add Inf **(Major Documentation continued)**
5) Larsen, R.L. 1955. Vocabulario Huasteco. Mexico City: SIL; 6) Alcorn, Janis B. & Barbara Edmonson. 1995. Huastec. In Encyclopedia of World Cultures, Vol. 8 (Middle America & the Caribbean), ed. by James Dow & Robert V. Kemper. New York: G.K.Hall/Macmillan [a general article about all aspects of Huastec culture/language]. Since 1970, the Huastec population in San Luis Potosí and Veracruz has nearly doubled, but the absolute no. of monolinguals has remained the same, showing some language decline.

Lg.Dict Salar.

Inf by Arienne M. Dwyer

Add Inf This is a language with "heavy" Tibetan and Chinese admixture. No orthography. The lg at school is Chinese. Although the population of speakers may seem large, dominant language structures (Chinese in Eastern and Uyghur in Western) are entering Salar at an ever-increasing rate. Most adult speakers are trilingual in Salar, Chinese, and Tibetan.

Lg.Dict Seneca.

Inf by Wallace Chafe

Add Inf Chafe is actively involved in lg preservation activities. The Senecas presently live in 5 major groups in the USA and Canada: the **Seneca Nation of Indians** (6,241) on 3 reservations in NY State (Cattaraugus and Allegany Counties), the **Tonawanda Band of Seneca** (1,050) near Akron, NY State; **Niganondasa Seneca** (262) & **Konadaha Seneca** (331) on the Six Nations Reserve; the **Seneca-Cayuga Tribe** (2,460) in Ok (George H.J. Abrams in Davis 1994: 582).

Lg.Dict Snchitsu'umshstsn (Coeur d'Alene), Salish.

Inf by Gary B. Palmer

Add Inf Dianne Allen is the director of the Department of Education, Coeur d'Alene Tribe (P.O. Box 238, Davenport Way, DeSmet, Idaho 83824).

(Major Documentation continued)
3) Nicodemus, Lawrence R. 1975. Snchitsu'umshstsn: The Coeur d'Alene Language, Vol. I & II. Spokane: University Press; 4) Occhi, Debra, Gary B. Palmer, & Roy H. Ogawa. 1993. Like Hair, or Trees: Semantic Analysis of the Coeur d'Alene Prefix *ne'* 'amidst'. In Proceedings of the 1993 Annual Meeting of the Society for the Study of the Indigenous Languages of the Americas (July 2-4, 1993) and the Hokan-Sioux Conference (July 3, 1993), Columbus, Ohio. Report 8. Survey of California and Other Indian Languages, pp. 40-58; 5) Palmer, Gary. 1993. Where There are Muskrats: The Semantic Structure of Coeur d'Alene Place Names. Linguistic Anthropology 32 (3-4): 263-294; 6) Palmer, Gary & Lawrence Nicodemus. 1985. Coeur d'Alene Exceptions to Proposed Universals of Anatomical Nomenclature. American Ethnologist 12 (2): 341-359; 7) Palmer, Gary, Lawrence Nicodemus, & Lavinia Felsman. 1987. Khwi' Khwe Hntmikhw'lumukhw: This is My Land. Coeur d'Alene Tribe of Idaho; 8) Palmer, Gary, Lawrence Nicodemus, & Tom Connolly. 1987. Khwi' Khwe Gul Schitsu'umsh. These are the Coeur d'Alene People. Coeur d'Alene Tribe of Idaho; 9) Reichard, Gladys. n.d. Coeur d'Alene Texts, Part I, I-XVII. Bernard College, New York City. Archives, Languages of the World, Indiana University; 10) Reichard, Gladys. 1938. Coeur d'Alene. Handbook of American Indian Languages. New York: J. J. Augustin; 11) Reichard, Gladys. 1939. Stem List of the Coeur d'Alene Language. International Journal of American Linguistics 10: 92-108; 12) Reichard, Gladys. 1958-60. A Comparison of Five Salish Languages. International Journal of American Linguistics 24: 293-300; 25: 8-15, 90-96, 154-167, 239-253; 26: 50-61; 13) Sloat, Clarence. 1966. Phonological Redundancy Rules in Coeur d'Alene. PhD Dissertation. University of Washington, Seattle, WA; 14) Sloat, Clarence. 1968. A Skeleton Key to Reichard's Coeur d'Alene Transcriptions. Anthropological Linguistics 10: 8-11; 15) Sloat, Clarence. 1971. The Phonetics and Phonology of Coeur d'Alene */r/*. In Studies in Northwest Indian Languages, ed. by James E. Hoard & Thomas M. Hess. Sacramento Anthropological Society Paper II, pp. 123-127; 16) Sloat, Clarence. 1972. Vowel Harmony in Coeur d'Alene. International Journal of American Linguistics 38: 234-239; 17) Sloat, Clarence. 1980. Vowel Alternations in Coeur d'Alene. International Journal of American Linguistics 46: 14-20.

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Lg.Dict Southeastern Tepehuán.

Inf by Thomas Willett

Add Inf **(Major Documentation continued)**
3) Willett, Thomas. 1991. A Reference Grammar of Southeastern Tepehuan. Dallas: SIL and University of Texas at Arlington; 4) Ramirez Solis, Cornelio and Thomas Willett. 1987. Expresiones locativas en tepehuán del suveste. Tlalocan 11: 89-100. Mexico City: Universidad Nacional Autónoma de México.

Lg.Dict Tariana.

Inf by Alexandra Y. Aikhenvald

Add Inf **(Major Documentation continued)**
4) Ouicone, P. Antônio. 1962. Pequena Gramática e Dicionário da língua Taliaseri, ou Tariana. Escola Tipográfica Salesiana. Salvador; 5) Koch-Grünberg, t. 1911. "Aruak-Sprachen Nordwestbrasiliens und der angrenzenden Gebiete." Mitteilungen der anthropologischen Gesellschaft, Wien 41:33-153,203-282.

Tariana is being replaced by Tucano (Tucanoan Family). Tariana is the only Arawak language in the linguistic area of the Vaupes, famous for its obligatory multilingualism described by A. Sorensen.

Lg.Dict Tzeltal of Tenejapa, Mayan Family.

Inf by Luisa Maffi

Add Inf **(Other Lg Com continued)** Oconingo, Cancuc, Chanal, Oxchuc, Abasolo, Pinola, Aguacatenango, Amatenango). A few other speakers found recently in some communities in SE Chiapas.

(Total Population No. continued)
Of the total population of Chiapas, 716,012 are indigenous: Tzeltal, Tzotzil, Chol, Tojolabal, Lacandon, Kanjobal, Mam, Zoque (Mexican Census of 1990). 96/95

(Major Documentation)
1) Berlin, B. & T. Kaufman. 1963. A Tenejapa Tzeltal Dictionary (Computerized by L. Maffi in 1988); 2) Slocum, M. & F. Gerdel. 1971. Vocabulario Tzeltal de Bachajón; 3) Kaufman, T. 1971. Tzeltal Phonology & Morphology; 4) Berlin, B. 1961ms. The Tenejapa Dialect of Tzeltal: an outline of morphology; 5) Slocum, M. 1948 Tzeltal (Mayan) Noun & Verb Morphology. IJAL 14 (1).

Although lg is in no immediate danger of extinction, it might not take too many generations for it to get there. Pressure to switch to Spanish is high. Literacy in Tzeltal is poor to very poor. Generally, contexts of use limited to family and community business. Literature in print very limited. A few (bad) primers. Radio programs virtually non-existent. No community-wide lg programs. Only growing ethnic pride may bring hope concerning documentation and preservation efforts.

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Lg.Dict Ulwa (Southern Sumu).

Inf by Ken Hale

Add Inf **(Nature of Fieldwork)**
The Karawala community designated Mr. Abanel Lacayo to meet with Hale at a Bilingual Educ Workshop in Bluefields in January of 1988. The Ulwa project began at that time with an elementary vocab of Ulwa (Hale & Lacayo 1988) printed up in the Lexicon Project of the Center for Cognitive Science at MIT. Lacayo returned to Karawala and worked with other members of the group (which was to become UYUTMUBAL) to expand the entries (appearing as CODIUL/UYUTMUBAL, etc. 1989). A number of texts were produced, for distribution in Karawala, and some published in *Wani*, a journal by the Center for Research and Documentation of the Atlantic Coast (CIDCA, Centro de Investigaciones y Documentación de la Costa Atlántica). A two-year NSF grant was obtained in 1993 to permit Thomas Green to work with UYUTMUBAL in the production of a full-size dictionary of Ulwa and to gather material for a grammar. The future of this project is uncertain. It is hoped that the committee will receive funding from an NGO and from the Ministry of Education as it works toward self-sufficiency. A plan for self-sufficiency includes expansion of the Ulwa Language House (Ulwah Yulka Uka), built in 1991 to house materials and provide an uncluttered working space, to a size which would accommodate paying guests, the profits to be used to support the work of the committee.

Ulwa is engangered. However, a full revival of Ulwa is by no means impossible, as the young people of Karawala have the enormous advantage that they know Miskitu, which, for the past century or more has existed with the Sumu lgs in a condition of "grammatical merger" of a most perfect sort. Allowing for morphological differences of detail, the lgs "translate" one another morpheme for morpheme with great ease. Thus, Karawala children have a natural head-start. Another factor in this is the fact they can read sentences out loud with great fluency and perfect phonology (albeit with little comprehension), as the Miskitu orthography is the same as the one adopted for Ulwa, and the segmental phonologies of the two lgs are virtually identical.

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Lg.Dict Ulwa (Southern Sumu).

Inf by Ken Hale

Add Inf **(Other Preservation Activities)**
Since 1988, there has existed a six-member Ulwa Language Committee called UYUTMUBAL in Ulwa (Ulwah Yulka Tunuk Muhika Baina, Council of the Ulwa Language) and, in Spanish, CODIUL (Consité del Idioma Ulwa). The activities of this body include 1) collection & writing of stories; 2) compilation of dictionary entries; 3) interviews with other Ulwa speakers; 4) the documentation of Ulwa history; 5) cooperative projects with linguists (dictionary & grammar); 6) translations (e.g. novels) into Ulwa; 7) plans for Ulwa in education of Karawala young people for lg revival.

(Major Documentation)
1) CODIUL/UYUTMUBAL, etc. 1989. *Diccionario Elemental del Ulwa (Sumu Meridional)*. CODIUL/UYUTMUBAL; Managua/Bluefields/Puerto Cabezas: CIDCA; Cambridge, MA: CCS-MIT; 2) CODIUL/UYUTMUBAL. 1991. "Takat kau kurawak kau muikna muhika baina/los primeros pobladores de Karawala." *Wani* 11:51-61; 3) Conzemius, Edouard. 1929. "Notes on the Mosquito and Sumu languages of eastern Nicaragua." *International Journal of American Linguistics* 5:57-115; 4) Hale, Kenneth. 1991. "El ulwa (sumu meridional) ¿un idioma distinto?" *Wani* 11:27-50; 5) Hale, Kenneth and Abanel Lacayo. 1988. *Vocabulario Preliminar del Ulwa (Sumu Meridional)*. CIDCA and CCS-MIT; 6) Lehmann, Walter. 1920. *Zentral-Amerika. Teil I: Die Sprache*. Berlin: Verlag Dietrich Reimer.

Lg.Dict Ushojo.

Inf by Ken Decker

Add Inf Ken Decker was the first person to collect any linguistic data on this group. There had been previous references that this group might exist but he provided the first proof. The series of five volumes of the Sociolinguistic Survey of Northern Pakistan gives sociolinguistic data, including language vitality on 26 languages.

Lg.Dlct Warekena of the River Xie, North Arawak

Inf by Alexandra Y. Aikhenvald

Add Inf Warekana of Xie spread in the region of Xie rather recently, ousting the 'old Warekena' which is still spoken by a couple of old people.

(Major Documentation)

1) Aikhenvald, A.Y. & R.M.C. Amorim. 1992. "Mudança de código lingüístico na migração de Warekena." Lume, UDESC, Florianópolis. 2) Aikhenvald, A.Y. Forthcoming. "Classe nominal e gênero nas línguas Arawák." Boletim do Museu Goeldi, Belem, Pará; 3) Aikhenvald, A.Y. Forthcoming. "Words, pauses and boundaries: evidence from South American Indian Languages." Studies in Language; 4) Aikhenvald, A.Y. Forthcoming. "Person-marking and discourse in North Arawak languages." Studia Linguistica; 5) Aikhenvald, A.Y. ms. A Grammar of Warekena. To appear in Handbook of Amazonian Languages, Vol. 4, ed. by D. Derbyshire and J. Pullum; 6) Aikhenvald, A.Y. & R. Amorim. Forthcoming. "Warekena in Brazil." Special issue of Opción (Venezuela); 7) Civrieux, M. & R. Lichy. 1950. "Vocabulário de cuatro dialectos Arawak del no Guanna." Boletín de la Sociedad Venezolana de Ciencias Naturales XIII (77): 121-159; 8) Crevaux, J.N., P. Sagot, & L. Adam. 1882. Grammaires et vocabulaires Roucouyenne, Arrouague, Piapoco et d'autres langues de la région des Guyanes. Paris; 9) Koch-Grünberg, T. 1906. "Die Indianer-Stämme am oberen Rio Negro und Yapurá und ihre sprachliche Zugehörigkeit." Zeitschrift für Ethnologie 38: 167-205; 10) Koch-Grünberg, T. 1911. "Arauk-Sprachen Nordwestbrasiliens und der angrenzenden Gebiete." Mitteilungen der anthropologischen Gesellschaft, Wien, Vol. 41: 33-153, 203-282; 11) Koch-Grünberg, T. 1913. Abschluss meiner Reise durch Nordbrasilien zum Orinoco, mit besonderer Berücksichtigung der von mir besuchten Indianerstämme. Zeitschrift für Ethnologie 45: 448-474; 12) Koch-Grünberg, T. 1928. Vom Roroima zum Orinoco. Ergebnisse einer Reise in Nordbrasilien und Venezuela in den Jahren 1911-1913, Vol. 4 (Sprachen), Stuttgart; 13) Mosonyi, E. 1968. "Introducción al analisis estructural del idioma Banwa." Economia y ciencias sociales 10, 3: 65-70.

Lg.Dlct Western Itelmen (a.k.a. Kamchadal)

Inf by Jonathan David Bobaljik

Add Inf There have been sporadic efforts at documentation or preservation over the past few years, most (including the current project) initiated outside the community, but with community support. No visible success. Even the oldest speakers have significant influence from Russian in all aspects of their Itelmen grammar. Most recently, Bobaljik collaborates with a team directed by a Free Univ. of Berlin ethnographer, Dr. Eric Kasten in production of educational materials for schools.

Lg.Dlct Wiyot.

Inf by Karl van Duyn Teeter

Add Inf Copies of Teeter field tapes at Humboldt State University (e-mail: <ccsdner@humseq.humboldt.edu>). Wiyot is famous as one of the two Pacific coast languages Sapir associated with Algonquian as long ago as 1913. History and provenience still a mystery, although the relationship is now well established.

Lg.Dlct Wyandotte.

Inf by Bruce L. Pearson

Add Inf The Wyandotte people originally lived along the northern banks of the St. Lawrence River, Quebec, Canada and were disparagingly called "Huron" by the French. The Iroquois pushed many of them west to Ohio and Michigan. The Wyandotte were later forced to move to Kansas and finally settled in northeastern Oklahoma (Clifford E. Trafzer in Davis 1994: 700-701).

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Lg.Dict Yavbé, a dialect of Yavapai.

Inf by Akira Y. Yamamoto

Add Inf **(Major Documentation continued)**
2) Kendall, Martha. 1972. Selected Problems in Yavapai Syntax. PhD Dissertation. Indiana University; 3) Shaterian, Alan. 1983. Phonology and Dictionary of Yavapai. PhD Dissertation. University of California at Berkeley.

Lg.Dict Yidgha (Munji-Yidgha).

Inf by Ken Decker

Add Inf **(Major Documentation continued)**
3) Sultan-ul-Arifin, Mohammad. 1988. The Yidgha Lg of Lotkohtehsil. Unpublished MA Thesis. Peshawar, Pakistan: University of Peshawar, Pakistan Study Center.

Yidgha speakers report that all can speak Khowar, but Khowar feel that Yidgha have poor proficiency in Khowar. Many men prefer Khowar wives so that children will be Khowar speakers. Several villages are so remote that shift to Khowar is still slow.

Lg.Dict Yuchi.

Inf by Mary S. Linn

Add Inf The partial speakers (45 yrs old and over) show the following characteristics: ability to hold conversations on limited topics; influence from English phonology and syntax; loss of vocabulary.

Most fluent speakers attend Euchee Language Class of Sapulpa to help preserve and encourage fluency. Materials are produced from the class. In the children's class, many activities are carried out with emphasis on using the language. There are no classes for beginning adults.

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Resetting Bounding Nodes in Acquiring Spanish
Ramiro Cebreiros

Syntax of Demonstrative Adjectives in Japanese: A Preliminary Study
Minoru Fukuda

Judgments of Politeness in L2 Acquisition
Yoko Harada

A-bar Dependency, Wh-Scrambling in Korean, and Referential Hierarchy
Gunsoo Lee

K'iche' Maya Verbs of Breaking and Cutting
Clifton Pye

An NP-Movement Account of Tough Constructions
Michael Reider

English Verb-Particle Constructions: Two Types, Two Structures
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Cherokee Stories of the Supernatural
Janine Scancarelli

Endangered Languages Data Summary
Akira Y. Yamamoto